APR 3 1973
AMBASSADOR COLLEGE LIBRARY
Pasadena, California

THE MANKIND QUARTERLY

AN INTERNATIONAL QUARTERLY JOURNAL
dealing with Race and Inheritance in the Fields of
ETHNOLOGY ETHNO- AND HUMAN GENETICS
ETHNO-PSYCHOLOGY · RACIAL HISTORY
DEMOGRAPHY AND ANTHROPO-GEOGRAPHY

Vol. XIII, No. 3 · January-March 1973
40p · $1.65

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

IAAEE REPRINTS

FINDINGS ON RACIAL DIFFERENCES BY MODERN SCIENTISTS

These Reprints provide scholars, students and others with easy access to important articles on the race question by leading scientists, originally published in specialized professional journals. Currently available are thirteen titles. Others are in preparation. All are priced at 25 cents a copy, except Nos. 11 and 12 which are 50 cents.

1. KLINEBERG'S CHAPTER ON RACE AND PSYCHOLOGY by Henry E. Garrett.
2. ZOOLOGICAL SUBSPECIES OF MAN by E. Raymond Hall.
3. ON THE NATURE OF PREJUDICE by A. James Gregor
4. ETHNIC GROUP DIFFERENCES by Stanley D. Porteus.
5. THE CONTROL OF EVOLUTION IN MAN by C. D. Darlington.
6. THE EMERGENCE OF RACIAL GENETICS by R. Ruggles Gates.
7. THE RACIAL HISTORY OF SCANDINAVIA by Bertil J. Lundman.
8. SOME NEGLECTED ASPECTS OF THE 'MINORITIES' PROBLEM by George A. Lundberg.
9. THE S.P.S.S.I. AND RACIAL DIFFERENCES by Henry E. Garrett.
10. SOCIAL SCIENCE TESTIMONY IN THE DESEGREGATION CASES: A REPLY TO PROFESSOR KENNETH CLARK by Ernest van den Haag.
11. THE INHERITANCE OF MENTAL ABILITY by Sir Cyril Burt.
12. THE AMERICAN MELTING POT: ITS MEANING TO US by John M. Radzinski.
13. PSYCHODIAGNOSIS, PROGNOSIS, SCHOOL DESEGREGATION AND DELINQUENCY by Clairette P. Armstrong.

Order from:

THE INTERNATIONAL ASSOCIATION FOR THE ADVANCEMENT OF ETHNOLOGY AND EUGENICS, INC.
P.O. Box 3495, Grand Central Station
New York, N.Y. 10017

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Race and Modern Science

Edited, with an introduction, by
Robert E. Kuttner

The sixteen monographs in this four-part volume—anthropology, biology, sociology and psychology—by natural and social scientists, many of whom are internationally known and recognized as authorities in their fields, explore the differences between the races of man. These essays are especially timely as a contribution to the body of modern scientific literature in view of the fact that for a number of years there has been a sustained effort to explain away racial differences as nothing more than the color of the skin. The scientists brought together in this volume present evidence that the races of man differ not only in physical appearance but also psychologically and in various respects biologically.

484 pages *$7.95*

The Testing of Negro Intelligence

By Audrey M. Shuey

This new edition of Dr Shuey's important work, first published in 1958, is a thorough revision and updating of the earlier book. The work has been expanded with much new material added. In this new edition Dr Shuey summarizes 382 studies of mental tests given to Negroes and Whites in the United States during the last fifty years. Also included are results of tests of some 1600 Negroes in Ontario and the West Indian islands of Jamaica and Grand Cayman. Upon publication of the first edition Dr Corrado Gini, late president of the International Institute of Sociology, wrote: "... the volume constitutes a milestone in this area. After its publication, the burden of proof rests upon those who reject its conclusions."

578 pages *$6.50*

SOCIAL SCIENCE PRESS

310 Madison Avenue, New York, N.Y. 10017

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Rivista di Etnografia

A yearly journal of

ETHNOLOGY, ANTHROPOLOGY, FOLKLORE,
CULTURAL ANTHROPOLOGY,
HISTORY OF RELIGIONS,
SOCIOLOGY, ETHNO-PSYCHOLOGY

Published under the auspices of
the National Research Council
Editor: Dr Giovanni Tucci

Subscription: 5000 lire (or equivalent) yearly

Rivista di Etnografia
Via Antonino d'Antona 20
Naples, Italy

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

VOL. XIII, NO. 3 THE JANUARY - MARCH 1973

THE MANKIND QUARTERLY

— mala opinio bene parta delectet —

EDITOR
R. GAYRE OF GAYRE, M.A., D.Phil., Pol.D.Sc., D.Sc.

HONORARY ASSOCIATE EDITORS
Professor HENRY E. GARRETT, Ph.D., D.Sc.
Professor MARIO CAPPIERI
Professor FRANK C. J. MCGURK

FORMER HONORARY ASSOCIATE EDITORS
† Professor R. RUGGLES GATES, M.A., Ph.D., D.Sc., LL.D., F.R.S.
† Professor CORRADO GINI, LL.D., D.Soc., D.Sc., D.Econ., D.Soc.Sc.

ASSISTANT EDITORS
ROBERT KUTTNER, B.S., Ph.D.
ROBERT H. S. ROBERTSON, M.A., F.R.S.(Edin.), F.G.S.

HONORARY ADVISORY BOARD

Professor Santiago Alcobé, Barcelona, Spain; Professor P. C. Biswas Delhi, India; Sir Raphael Cilento, Brisbane, Australia; Professor Alberto Xavier da Cunha, Coimbra, Portugal; Professor Gerrit Daams, Kent, Ohio, U.S.A.; Professor A. P. Elkin, Sydney, Australia; Professor Luigi Gedda, Rome, Italy; Professor Dr E. Hanhart, Zurich, Switzerland; Professor J. D. J. Hofmeyr, Pretoria, South Africa; Professor Charles C. Josey, Indianapolis, Indiana, U.S.A.; Dr Watson Kirkconnell, Wolfville, Canada; Dr Taku Komai, Kyoto, Japan; Professor Bertil Lundman, Uppsala, Sweden; Professor Frank C. J. McGurk, Villanova, Pennsylvania, U.S.A.; Professor Branimiro Males, Tucuman, Argentina; Dr Clarence P. Oliver, Austin, Texas, U.S.A.; Professor S. D. Porteus, Honolulu, Hawaii, U.S.A.; Professor Stefan T. Possony, Stanford, California, U.S.A.; Dr David C. Rife, Gainesville, Florida, U.S.A.; Professor Alfredo Sacchetti, Naples, Italy; Professor M. R. Sahni, Panjab, India; Professor Herbert Sanborn, Tenessee, U.S.A.; Professor Walter Scheidt, Hamburg, West Germany; Dr John Scudder, New York, U.S.A.; Professor Sergio Sergi, Rome, Italy; Dr Audrey M. Shuey, Lynchburg, Virginia, U.S.A.; Professor M. J. Sirks, Groningen, Netherlands; Professor Torsten Sjögren, Stockholm, Sweden; Professor Giovanni Tucci, Naples, Italy; Professor Harry Turney-High, Columbia, South Carolina, U.S.A.; Professor O. v. Verschuer, Münster, Westphalia, West Germany; Professor H. V. Vallois, Paris, France; Dr R. J. Walsh, Sydney, Australia; Professor K. Robert V. Wikman, Abo, Finland.

Published by
THE MANKIND QUARTERLY
1 Darnaway Street, Edinburgh EH3 6DW, Scotland

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

VOL. XIII, NO. 3 JANUARY-MARCH 1973

CONTENTS

TWIN STUDIES AND THE INHERITANCE OF MENTAL ABILITY
by Frank Miele 129

WHY THE STARS?
by Desmond Tarrant 141

THE DEVELOPMENT OF CULTURE IN THE LIGHT OF ARCHAEOLOGY
by Marie E. P. König 151

ISRAEL AND SOUTH AFRICA: TWO BELEAGURED ELITES
by Nahaniel Weyl 158

THE MEASUREMENT OF CULTURAL DEVELOPMENT IN THE ANCIENT NEAR EAST AND IN ANGLO-SAXON ENGLAND
by Donald A. Swan 166

ON THE SNOWS OF ANNAPURNA
by Odette Tchernine 171

FAREWELL TO BEHAVIORISM
by Dale C. Adams 174

JOURNALS RECEIVED 180

THE OBJECT LESSON OF AMERICA
by G. M. Mes 181

BOOK REVIEWS 186

Articles appearing in this journal are abstracted and indexed in *Historical Abstracts* and *America: History and Life.*

© 1973 The Mankind Quarterly

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Twin Studies and the Inheritance of Mental Ability

By FRANK MIELE

Twins have been observed and commented upon since the dawn of history.[1] It was not until the nineteenth century, however, that the possibility of using twins in studying the effects of nature and nurture on the development of mental ability was suggested by Sir Francis Galton. This possibility arises out of the fact that twins are of two types: identical (or monozygotic) and fraternal (or dizygotic). Monozygotic twins arise from the division of a single fertilized ovum and hence have identical heredities. Dizygotics result from the fertilization of two separate ova by two sperm,[2] and are no more alike than ordinary siblings (i.e. they have about one half of their genes in common). Assuming that the environments of monozygotic (MZ) twins are as alike as those of dizygotic (DZ) twins, one can use the two types of twins to assess the relative effects of heredity and environment. Finding a significantly greater resemblance between MZ twins than between DZ twins (i.e. less within-pair variance) for a certain trait, given the above assumption, is evidence for the greater rôle of heredity in determining that trait.

STUDIES USING THE TRADITIONAL METHOD

The traditional method of determining the rôle of heredity in the development of mental ability is to compute the intraclass correlations for the MZ and the DZ twins. A significant difference between the intraclass correlations in favor of the MZ twins is taken as evidence of the relative importance of heredity. Further, the correlations may be used to determine the heritability, i.e. the proportion of the variance due to genetic sources, for the trait by a number of formulas, none of them totally satisfactory.[3]

[1] L. Gedda, *Twins in History and Science,* Charles C. Thomas, Springfield, Illinois, 1961.

[2] *Ibid.*

[3] A. Jensen, "Estimation of the Limits of Heritability of Traits by Comparison of Monozygotic and Dizygotic Twins," *Proceedings of the National Academy of Sciences,* Vol. 58, 1967, pp. 149-156.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Erlenmeyer-Kimling and Jarvik[4] summarized fourteen studies of the heritability of intelligence using the traditional method. They report a median intraclass *r* of .87 for the MZ twins and of .53 for the DZs. These values are in agreement with those reported in other studies and summarized by Tyler.[5] More recent studies using the traditional method are summarized in Table I.

TABLE I

Summary of recent twin studies

Investigator	Nmz	Ndz	h^2	Factor
1. Schoenfeldt				
Males	150	53	.77	Verbal
	150	53	.47	Visual
	150	53	.ns	Perceptual
	150	53	.57	Memory
Females	187	103	.87	Verbal
	187	103	.74	Visual
	187	103	.61	Perceptual
	187	103	.30	Memory
2. Block	60	60	.70	WAIS Perf.
	60	60	.71	WAIS Ver.
	60	60	.71	WAIS Tot.
3. Vandenberg	45	37	.61	Number
	45	37	.62	Verbal
	45	46	.59	Spatial
	44	35	.61	Wd Fluency
4. Osborne	53	12	.77	Verbal
	53	12	.71	Number
	53	12	.56	Spatial

Schoenfeldt[6] examined the data on twins gathered in the Project Talent Study for cognitive and non-cognitive tests. For general intelligence he reported intraclass *r*'s of .78 and .39 for MZ and DZ twins in the male sample and .81 and .52 for females. These values yielded h^2 of .77 and .87. Measures of three differential aptitudes (visual reasoning, perceptual speed

[4] L. Erlenmeyer-Kimling and L. Jarvik, "Genetics and Intelligence," *Science,* Vol. 142, 1963, pp. 1,477-1,479.

[5] L. Tyler, *The Psychology of Human Differences,* Appleton-Century-Crofts, New York, 1965.

[6] L. Schoenfeldt, "Hereditary Components of the Project Talent Two-day Test Battery," *Measurement and Evaluation in Guidance,* Vol. 1, 1968, pp. 130-140.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

and memory) yielded slightly lower heritabilities, but still significant, save for the perceptual factor for males.

Non-cognitive scores showed marked differences in heritabilities for males and females, the latter showing more significant heritabilities. Apparently environment has a greater effect on the non-cognitive abilities. Another fact to be noticed is the male-female differences in heritabilities. It must always be kept in mind that heritability indices are population statistics. Groups which differ in environmental conditions may differ in the proportion of the trait variance in that group accounted for by genetic factors.

Block[7] administered the WAIS to 60 pairs of MZ twins and 60 pairs of DZ twins. He used the F ratio to test for the significance of the difference in the intraclass *r*'s for the two groups. The differences were significant for all subtests save Picture Completion and Objects Assembly when sexes were combined. For the Verbal Score, Performance Score and Total I.Q. the differences were significant at the .001 level. For just the female subjects, all subtests except Block Design and Digit Span showed significant differences. For males only, but three subtests showed significant differences. However, the Verbal, Performance, and Total score differences were significant. Comparing the intraclass *r*'s for male versus female MZ and DZ pairs for the various subtests showed only three significant differences. Thus, as in Schoenfeldt's study, mental ability showed a significant genetic component for both sexes.

Vandenberg[8] found significant MZ-DZ differences on the Verbal, Space, Number, and Word Fluency components of the PMA Battery. The Reasoning and Memory tests did not show such a difference.

In a group of later studies summarized by Vandenberg,[9] the following tests from Thurstone's battery were found to have significant F ratios: Reading, Verbal Completion, Vocabulary, Sound Grouping, Form Board, Arithmetic Reasoning, Multiplication, and Number Code. F ratios were non-significant for: Verbal Analogies, Verbal Classification, Reasoning, Punched Holes, Flags, Word Number Memory, Figure Recognition, and Identical Forms.

[7] J. B. Block, "Hereditary Components in the Performance of Twins on the WAIS," *Progress in Human Behavior Genetics* (editor S. Vandenberg), Johns Hopkins Press, Baltimore, 1968.

[8] S. Vandenberg, "The Heredity Abilities Study," *American Journal of Human Genetics*, Vol. 14, 1962, pp. 220-237.

[9] S. Vandenberg, R. Stafford and A. Brown, "The Louisville Twin Study," *Progress in Human Behavior Genetics, op. cit.*

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Osborne, Gregor, and Miele[10] found a significant MZ-DZ difference on a test of Simple Arithmetic, yielding an h^2 value of .71. Osborne and Gregor[11] found significant differences for six tests of spatial ability, while three tests failed to show significant differences. The median h^2 was .75 for the six significant tests. A significant h^2 of .77 was found for the Heim Vocabulary Test, but not for the Heim Self-Judging Vocabulary Test, the Spelling Achievement Test or the Wide-Range Vocabulary Test.[12]

In summary, recent studies using the traditional twin method corroborate those reported by Tyler[13] in demonstrating that MZ twins are more alike than DZ twins on tests of mental ability. Review of such studies has led to the conclusion that up to 75 per cent of the variance in mental ability can be accounted for by genetic sources.[14]

ASSUMPTIONS IN TWIN STUDIES

Those who would place greater emphasis on the rôle of environment in the development of mental ability have pointed out that the above interpretation of traditional twin studies rests upon certain assumptions. In particular they have questioned the idea that the environmental similarity of MZ and DZ twins is equal.[15] Smith[16] has shown that "there is a greater degree of intra-pair similarity among MZ as compared to DZ twins with respect to habits, activities, personal preferences, parental treatment and self-images." Thus, one is not certain that "the greater concordance observed among MZ twins is not a manifestation

[10] R. Osborne, A. Gregor and R. Miele, "Heritability of Numerical Facility," *Perceptual and Motor Skills*, Vol. 24, 1967, pp. 659-666.

[11] R. Osborne and A. Gregor, "The Heritability of Visualization, Perceptual Speed and Spatial Orientation," *Perceptual and Motor Skills*, Vol. 23, 1966, pp. 379-390.

[12] R. Osborne, A. Gregor and F. Miele, "Heritability of Numerical Facility," *op. cit.*

[13] L. Tyler, *op. cit.*

[14] A. Jensen, "How Much Can We Boost School Achievement and I.Q.?" *Harvard Educational Review*, Vol. 35, 1969, pp. 1-123.

[15] D. Stott, "Commentary on 'The Genetic Determination of Differences in Intelligence'," *British Journal of Psychology*, Vol. 57, 1966, pp. 423-429.

[16] R. Smith, "A Comparison of Socioeconomic Factors in Monozygotic and Dizygotic Twins," *Progress in Human Behavior Genetics*, *op. cit.*, pp. 58-59.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

in part, of the greater environmental similarity among monozygotes."[17]

This finding does not sound the death-knell to the genetic interpretation, however. The key question is "do MZs receive similar treatment because they are inherently similar, or do parents treat them more alike than they do DZs merely because the former look more alike than do the latter?"

Scarr[18] sought to answer this question by studying twins whose parents had misclassified them, i.e. MZ twins thought to be DZs by their parents and *vice versa*. The parental treatment such pairs received was compared with that given to twins whose parents had correctly guessed their zygocity. While the number of subjects was too small to allow significant statistical comparison, the data gathered tended to confirm the hypothesis that

> the genetic relatedness of the twins determined the similarity of parental treatment. The mothers of MZ twins, whom they wrongly believe to be DZ, treat them more like correctly identified MZ twins. And mothers of DZ twins, whom they believe to be MZ, treat them more like correctly classified DZ pairs. Despite the mothers' erroneous beliefs, the twins are recognized as having similarities and differences appropriate to their degree of genetic relatedness.

MZ TWINS REARED TOGETHER AND APART

An excellent method for avoiding the confusion arising from the possibility that MZ twins may be more similar both in their heredities and their environments than DZ twins, is to study MZ twins reared in different homes. Twins are a rare phenomenon in themselves and MZ twins reared apart are extremely few in number. Hence few studies of this type have been conducted, many being single case reports and therefore of extremely limited value.[19]

The first study employing enough subjects to produce significant data was that of Newman, Freeman and Holzinger.[20] They reported an intraclass correlation of .88 for 50 pairs of MZs

[17] C. Burt, "The Genetic Determination of Differences in Intelligence: A Study of Monozygotic Twins Reared Together and Apart," *British Journal of Psychology*, Vol. 57, Nos. 1 and 2, p. 59.

[18] S. Scarr, "Environmental Bias in Twin Studies," *Progress in Human Behavior Genetics*, Johns Hopkins Press, Baltimore, 1968, p. 211.

[19] J. Shields, *Monozygotic Twins*, Oxford University Press, London, 1962.

[20] H. Newman, F. Freeman and K. Holzinger, *Twins: A Study of Heredity and Environment*, University of Chicago Press, Chicago, 1937.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

reared together, .77 for 19 MZs reared apart and .64 for 51 pairs of DZs reared together. On the face of it, the data support the greater effect of heredity than environment in the development of mental ability. When I.Q. differences were plotted against environmental differences for the MZs reared apart it was found that small environmental differences had little effect on intelligence.

The conclusions drawn from the data by the three authors show the effect of the researcher's orientation in the interpretation of the results. As Shields[21] points out:

> Freeman the psychologist considers it showed 'human nature may be improved or debased to a degree that many thought impossible.' Holzinger the statistician, points out that 'relatively great environmental differences must be present to produce a noticeable effect.' Newman, the biologist, confesses to have been 'much more impressed with the very great intra-pair similarities after the twins had been exposed to all sorts of environmental differences, than with the differences between them.'

In a more recent study Shields[22] compared 44 pairs of MZ twins reared apart with 44 pairs of MZ twins reared together and matched for age and sex and seven pairs of DZ twins reared together. The majority of the MZs reared apart had been separated within the first six months after birth. Intelligence test data were reported for only 34 separated pairs and 37 control pairs and the seven DZ pairs. The tests used were the Dominoes Intelligence Test (a nonverbal I.Q. test) and the Raven's Mill Hill Vocabulary Scale. The distribution of scores for both MZ samples was approximately normal.

For both the tests and for the pooled I.Q. the intraclass *r*'s for the MZs reared apart were not significantly different from those of the MZs reared together. For the total I.Q., the intraclass *r* for the MZs reared together was .76, for the MZs reared apart .77, and for the DZs reared together .51. Shields[23] concluded that "the intra-pair differences were consistent with a small early environmental effect," and that comparison with a group of DZ twins reared together "confirmed the importance of genetical factors for intelligence."

[21] J. Shields, *op. cit.*, pp. 11-12.

[22] J. Shields, *op. cit.*

[23] J. Shields, *op. cit.*, p. 64.

[24] R. Johnson, "Similarity of I.Q. of Separated Identical Twins as Related to Length of Time Spent in Same Environment," *Child Development*, Vol. 34, 1963, pp. 745-749.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Johnson[24] and Vandenberg and Johnson[25] reviewed the literature on MZ twins reared apart to test the hypothesis that if early environmental stimulation or deprivation has a significant effect on measured intellectual ability, then the similarity of intelligence test scores of separated MZ twins should be a function of the amount of time they spent in a common environment. They concluded[26] that " these data do not suggest that a longer period of common early experience produces greater similarity in I.Q." Indeed, the opposite was true, save for the data produced by Shields which showed no relation between length of time spent in a common environment and similarity of I.Q.

The best study of MZ twins reared together and apart is that of Burt[27] in that he collected enough data to allow him to answer many of the criticisms raised against the genetic interpretation of such studies. Surprisingly, many of these same criticisms were made of his study[28] after Burt had already responded to them. Stott[29] argued that twins were atypical and MZ twins reared apart particularly so. Hence he argued that it was not proper to generalize from such an unrepresentative sample of the population.

Burt was careful to point out that the distribution of intelligence in his twins paralleled that of the general population. The mean I.Q. for the 53 pairs of MZs reared apart was 97.8, for the MZs reared together 98.1, and for the DZs reared together 99.3. The standard deviation for the MZs reared apart was 15.3 against 15.0 for the population. The range of I.Q. scores for the MZs reared apart was from 66 to 139. Certainly in terms of intelligence, Burt's twins were not atypical.

Halsey[30] had criticized earlier twin studies on the grounds that adoption agencies practised selective placement, i.e. separated twins were placed in homes quite similar to their original homes. Thus the resemblance in I.Q. of MZ twins reared apart might be the result of their having been placed in very similar environments. Burt measured the similarity between the socioeconomic

[25] S. Vandenberg and R. Johnson, " Further Evidence of the Relation Between Age of Separation and Similarity of I.Q. Among Pairs of Separated Identical Twins," *Progress in Human Behavior Genetics, op. cit.*

[26] S. Vandenberg and R. Johnson, *op. cit.*, p. 218.

[27] C. Burt, " The Genetic Determination of Differences in Intelligence: A Study of Monozygotic Twins Reared Together and Apart," *op. cit.*

[28] D. Stott, *op. cit.*; D. Lewis, " Commentary on 'The Genetic Determination of Differences in Intelligence'," *British Journal of Psychology*, Vol. 57, 1966, pp. 431-433.

[29] D. Stott, *op. cit.*

[30] A. Halsey, " Class Differences in Intelligence," *British Journal of Statistical Psychology*, Vol. 12, 1959, pp. 1-4.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

conditions of the homes in which his separated identical twins were brought up. As indicated in Table II there is no evidence for selective placement. Indeed,[31] "the average environmental difference between separated twins is actually greater than it would have been had the homes been selected at random." It should also be noted that the entire range of SES conditions is represented in the twin sample. Further, all twin pairs were separated within the first six months after birth.

TABLE II

Home environments of twins in Burt's study

	Foster parents							
Parents	I[1]	II[2]	III[3]	IV[4]	V[5]	VI[6]	Inst.[7]	Total
I	0	0	0	1	2	0	0	3
II	0	0	1	0	4	2	2	9
III	0	1	0	0	2	1	0	4
IV	1	1	0	0	2	1	0	5
V	2	0	2	1	5	2	3	15
VI	1	1	0	7	3	2	2	16
Total	4	3	3	9	18	8	7	52

[1] Higher professional.
[2] Lower professional.
[3] Clerical
[4] Skilled.
[5] Semi-skilled.
[6] Unskilled.
[7] Residential institution.

Burt was concerned with the inheritance of general mental ability. The technique he used to assess *g* was to give his subjects a group test of intelligence, then the British version of the Binet, and ask their school teachers to indicate if either of these scores did not appear to be a true measure of the pupils' mental ability. Any pupils so identified were then given a retest, and a final assessment of intelligence was made.

Table III presents the intraclass correlations for the three twin groups on tests of mental ability and scholastic achievement, and for height. Correlations for various other degrees of kinship are also included. The theoretical values are those of Jensen[32] assuming that the trait is entirely controlled by genetic factors and that neither partial dominance nor assortative mating are active.

[31] C. Burt, "The Genetic Determination of Differences in Intelligence . . .," *op. cit.*, p. 144.

[32] A. Jensen, "How Much Can We Boost School Achievement and I.Q.?" *op. cit.*

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

TABLE III

Obtained and expected correlations following the pure genetic model for various degrees of genetic similarity.

	Intelligence		*Educational*		*Height*	
	O[1]	E[2]	O	E	O	E
MZ twins together	.93	1.00	.98	1.00	.96	1.00
MZ twins apart	.87	1.00	.62	1.00	.94	1.00
DZ twins together	.45	.50	.83	.50	.47	.50
Siblings together	.53	.50	.80	.50	.50	.50
Siblings apart	.43	.50	.52	.50	.53	.50
Unrelateds together	.27	.00	.53	.00	−.06	.00

[1] Obtained correlation.

[2] Expected correlation from pure genetic model.

The major finding in Burt's data is that the intraclass correlations for the MZ twins, even when reared apart in differing environments, are significantly greater than for DZ twins reared together on tests of mental ability. For the final assessment the values are .87 versus .63, a difference four times the standard error. The difference between the MZ twins reared together and those reared apart (.92 against .87) shows the effects of environment on people of identical heredities to be present, but of low magnitude. The differences between the correlations obtained and the theoretical correlations also show the effects of environment. The fact that the drop from the theoretical value to the value obtained when environment is altered is fairly constant for the various degrees of kinship, indicates that the estimation of environmental effect from twin studies can be given credence.

Comparing the measures of intelligence with the data on height and scholastic measures, we see that the pattern of resemblance for mental ability is more similar to the former than the latter in being less affected by environment. To substantiate this point further, Burt rated the material and cultural conditions of the home of each twin reared apart. He then correlated the scores on the cultural and the material scales with the intelligence test and scholastic test scores. As reported in Table IV, material conditions were not significantly related to any of the intelligence measures, but were related to scholastic measures. Cultural

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

conditions were significantly related to scores on scholastic tests and on the group test, but not to scores on the individual test or the final assessment. Burt[33] concluded "that individual differences in 'intelligence' . . . are influenced far more by genetic constitution, or what is popularly termed 'heredity' than by post-natal or environmental conditions."

TABLE IV

Correlations of differences for monozygotic twins reared apart.

	Differences in home conditions	
Differences in intelligence	*Cultural conditions*	*Material conditions*
Group test	.43*	.21
Individual test	.26	.16
Final assessment	.15	.18
School achievement	.74*	.37*

* Significant at the .05 level.

PRENATAL ENVIRONMENT

Thorough-going environmentalists have still refused to accept data such as Burt's as proof of the inheritance of mental ability. Stott[34] has argued that it is the similarity in prenatal, rather than postnatal, environment that accounts for the observed similarity in twins. He argues that competition for limited maternal resources results in an impairment of development in twins, thus making them very alike. While it is true that the general level of mental ability is slightly below average in the twin population[35], Burt's data show that the full range of intelligence is to be found among twins. Further, this competition for limited resources can result in one twin being dominant, and hence tending to obscure similarity.[36]

Proponents of the prenatal influence hypothesis have never explained why it should affect MZs more than DZs, simply because the former share a common chorion, while the latter do

[33] C. Burt, "The Genetic Determination of Differences in Intelligence . . .," *op. cit.*, pp. 151-152.

[34] D. Stott, *op. cit.*

[35] T. Husen, *Psychological Twin Research*, Almquist and Wiksell, Stockholm, 1959.

[36] C. Burt, "The Genetic Determination of Intelligence: A Reply," *British Journal of Psychology*, Vol. 57, 1966, pp. 434-453.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

not. Indeed, a recent study[37] of the twinning process has shown that "while DZ twins are always dichorionic, between 15 per cent and 20 per cent of the monozygotic twins may also be dichorionic." At present the evidence is insufficient to allow one to conclude that the heritabilities produced in twin studies are an artifact of prenatal factors.

THE CROSS-TWIN METHOD

Studies using the traditional twin method have repeatedly pointed to the importance of genetic factors. A recent study reported by Schoenfeldt,[38] using the cross-twin method, would appear to cast some doubt on these findings. In this method, a series of correlations are made for various measures, not only of Twin A with Twin B, but also Twin A with Twin A. The mean of the former correlations is termed the cross-twin correlation, and the mean of the latter, the within-twin correlation.

Since identical twins are genetically the same, if heredity is important in the development of a trait, there should be little difference between the cross-twins and the within-twin correlations for MZ twins. For DZ twins, who have only one half their genes in common, the cross-twin correlation should be about one half the cross-twin r for MZ twins, if heredity is important.

Such is the case for anthropometric traits. For cognitive traits, shown to have high heritabilities by traditional methods, this is not so however. The drop of the cross-twin correlation from the MZ to the DZ twins for cognitive traits is only .75 versus .52 for anthropometric traits. These data are interpreted to indicate that the heritabilities established by usual methods may be spuriously high.

CONCLUSIONS AND IMPLICATIONS

Recent twin studies, using traditional methods, support the literature surveyed by Tyler in pointing to the importance of heredity factors over environmental ones in the development of mental ability. These studies have led to the conclusion that up to 75 per cent of the variance in intelligence may be the result of genetic factors. The studies of identical twins reared together and

[37] G. Corney, E. Robson and S. Strong, "Twin Zygocity and Placentation," *Annals of Human Genetics,* Vol. 32, 1968, pp. 89-96.

[38] L. Schoenfeldt, "The Cross Twin Correlation Model for Assessing Genetic Contribution to Behavior," paper presented at the South-eastern Society for Multivariate Experimental Psychology, Louisville, Kentucky, April, 1970.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

apart provide particularly strong evidence for the hereditarian position. The data produced by the cross-twin method challenge this conclusion, however.

It seems obvious that further studies using the traditional method will produce the same results as previous studies. Hence, there exists little need for more such attempts. It would be nice to resolve the conflict produced by the results of the traditional and cross-twin methods. Since only one study has used the cross-twin method in studying the development of mental ability, more use of it should be made. Further, the tests employed in the study by Schoenfeldt, while of high heritabilities, are hardly what Burt would call tests of *g*.

A particularly useful approach would be a longitudinal study using the cross-twin method. Regardless of their points of view, students of individual differences are all coming to the view that it is not heredity or environment, but both, and the interaction of both. It is because of this interaction effect that this review has spoken of the development of mental ability. Attention should be paid in future studies to examining heritabilities as a function of environmental level.

There is one area in which more traditional twin studies would be useful. That is if they were carried out on populations other than the white American and European groups. Since the heredity-environment question is always brought up in discussions of race differences, it must be emphasized that heritabilities are functions of the populations studied. The data on minority groups are woefully inadequate.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Why the Stars?
or
The Evolution of Man's Religious Sense

By DESMOND TARRANT

> There's a divinity that shapes our ends,
> Rough-hew them how we will . . .
>
> Hamlet.

During the bustle of the daily round it is only too easy to forget that on *this* planet man has only just been created.

If man's cultural millennia be equated with one hour, we have spent 55 minutes in the Palaeolithic period; the Industrial Revolution began five seconds ago; we have had cars for less than *one* second.

However, if civilisation is only just appearing here in the crystal ball, on the ticker-tape of Time, the fact that we do reach a culmination — at least for a while — over what went before is encouraging. It has taken all these thousands of millions of years to make *us*. As Sir Julian Huxley, among others, has illustrated, the whole process amounts to one continuous stream of life. In fact, if life is synonymous with activity, matter being only a pattern of energy, this stream extends back to the galactial origins, the inter-stellar gas, the cosmic dust — and the magnetic fields which give the dust direction in the course of making man.

From his first sentient moments, Man has wondered about the purpose of this process of which he finds himself, of necessity, a part. His wonderings fall into four stages; in accordance with evolution, each is higher, or more complex than the last, and more convincing, or co-ordinates the evidence, human experience, more intelligibly — not *intelligibly* only *more* intelligibly, in what we must hope is an ever-closer approximation to the *truth* (i.e. that which integrates knowledge on verifiable foundations).

The fourth or latest stage has become possible only with the advent of science. But it shows the same primary principles of motivation or cause, and behaviour or effect, as the earlier stages, so that these must be examined to establish these principles.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

That is, we must establish the primordial principles governing what man does and revealing why he does it in this continuous flow of activity called life or evolution.

The first stage — still anthropologically accessible for study in the world's *very* primitive peoples — shows man interspersing his daily behaviour with ritual highlights. These embodied rhythm, pattern and symbols, involving fear purged through pleasure to achieve freedom — i.e. a security, however temporary, from the fear. These rituals, no matter what environment moulded them, had many features of all aspects in common. So much for the "how" — but *why*? Why did man behave like this?

Great field workers in anthropology and psychology, such as Malinowski and Carl Jung, have offered an answer. That is, they have put forward an hypothesis which is verified by the facts. Briefly, it amounts to this. Primitive man *felt* that all kinds of forces were in action all around and within himself, some trying to destroy him and some trying to help. It seemed to him advisable, in the interests of survival, to control the hostile and propitiate the helpful. To do this he had to make these forces as obvious as possible. This led to personifications. It seemed to primitive man that what pleased man would please the personifications, and sacrifices were made accordingly—as a consequence of fear—to obtain the security brought by the insurance policy of propitiation. Thus, even at the very beginning man did not create his magic haphazardly, but out of the living tissues of his experience. He was using what resources he had — very little in the way of critical or intellectual functions but quite enough emotionally — to identify causes, and oppose or facilitate them in self-interest, to survive. An important point here is that these rituals *worked* — they actually did purge fear and bring freedom or peace or happiness. The rituals pulled people together whom life was pulling apart.

Thus these rituals were practical in origin. The personifications concerned everyday tasks involving especially the crops; they cultivated discrimination in distributing taboos, even if the emotions, too, were fundamentally involved. In fact, it was those who were most *sympathetic* to nature who provided the most satisfying personifications and created the most satisfying rituals; these formed the embryo priesthoods, the links between the mass and the gods. As pleasure was most intense during the ritual, the artistic process itself became important, as well as the catharsis it produced. As the whole business facilitated survival and involved distinguishing between the hostile and the helpful, a sense of obligation on behalf of collective security was also nurtured. So here we have not just the behaviour — ritualistic, rhythmic and symbolic — but the principles causing it, artistic

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

and moral, all clarifying the positive and negative aspects of daily experience.

If anthropology shows the outer forms of this behaviour, it is psychology which reveals the inner compulsions producing them. This can be seen very clearly at the second or polytheistic stage. With Greek civilisation, and its greater and more refined complexity, the personifications included not only the forces at work in nature, but more precisely in man himself. The Greeks personified not only the electrical storms of Jove but the flashes of mortal passions too — and their effects for better or for worse. The polytheistic religions were a great advance; still through his pattern of rhythmic, symbolic rituals, man was identifying further those aspects now of *conduct* which destroyed or helped him. He was no longer putting all the blame on Nature.

Psychology shows the inner forces which produced these rituals, the inner forces of poisonous fear and the desire for its antidote in the interest of survival. We know now what the personifications of these rituals actually signify and illustrate, whether the artist realises it or not — sexual, carnal or reproductive energy sublimated to produce social or domestic consequences in the evolution of higher forms of life. Activity, now social and sentient as well as biological and chemical, produces ideas which extend mastery of an environment. This environment, in supplying external necessities, works hand in glove with the internal compulsion in man himself.

Some well-known symbols from the third or monotheistic stage may illustrate this. The forbidden fruit of the story of Eve (the Cockney's apples and pears up the stairs) signifies "forbidden" fruit, however seductively ample; in other words, an invitation to an expenditure of energy that is carnal; the serpent in Adam's context is masculine and suffice it to say that it came between them. Excessive expenditure of carnal energy left insufficient for other things — hence the fall instead of the rise to higher levels of life. The consequence was not freedom but guilt, not harmony but discord, not peace but war.

Adam and Eve were mortal, and show the forces at work subconsciously within mortals. Prometheus is an immortal and gives an insight into the gods, i.e. a profounder view of the forces at work beyond merely finite limits. Prometheus, a Titan, robbed the gods of fire, stealing it from heaven to inject, with the aid of a tube, the dull clay, the apathetic natures, of mortals, and thus bring them to life, or a sense of urgency, or alertness, in the interests of survival. For this effrontery, Zeus, all-powerful authority, made Prometheus suffer in chains, deprived of his freedom — on a rock and gnawed by a vulture until an immortal should agree to die in Prometheus's place. Chiron, half man, half

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

horse, agreed to do this, whereupon Hercules, Zeus's own son, destroyed the vulture. Chiron was skilled at medicine; Hercules was renowned for his force or strength.

What do these symbols mean? How far did or do they articulate the forces at work in man's experience? The psychologist studied these words as never before. Prometheus, traced through its ramifications in Sanskrit and Indo-Germanic, was found to mean "the stick-rubber" as well as "robber." Its literal meaning was "forethinker" — one who looks ahead. Anthropology has made it clear that the rubbing of sticks together was a world-wide ritual and may well explain the origin or discovery of fire.

But what made man rub things together for hours on end and, probably, at first anyway, only inadvertently produce sparks? The psychologist explains that man's desire would lead him, incestuously or otherwise, to the most prominent woman. This could well be the mother. She would be the best known and loom largest because she was the first source of sustenance and pleasure. Here would appear eventually a clash between carnal desire and the sense of social obligation — especially where the group was large and watchful, and clubs were still carried individually, instead of by a police force.

Prometheus would have to go away and indulge in substitute rituals, one of which involves circular rubbings, wood on wood, flints on flints, or suchlike — in Australia, for example, one ritual became an elaborate dance wherein a hole in mother earth was stabbed by shafts. Why these rubbings? Because, says the psychologist, having been frustrated of the ultimate aim of mating, he could regress to the immediately preceding stage of infantile breast feeding, an accompaniment of which are circulatory movements of the hands. Hours of rubbing with sticks would be needed to expend the equivalent of the energy that would have been consumed in actual mating and to bring anything like the same solace or catharsis. But what a reward! Of fire, warmth and cooking. So man appears to have been designed specifically so that he *had* to invent fire as a result of a union of external necessity with internal necessity which thus become the mother of invention — on the basis of a sacrifice of self-interest, voluntary or enforced.

Thus emerged the rituals and their symbolism as energy was sublimated towards the sublime — man could not be mating *all* the time. Prometheus would be the leader in this process, the one who — to use the dictionary — is life-giving, daringly original, and creative. On the basis of self-sacrifice he controls carnal desire to sublimate his energy rather as a modern woman can find more or less fulfilment in social work — and be just as

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

unconscious of the real roots of her intense drive as the early Prometheus.

Thus the ancient myths made articulate the conscious and unconscious aspects of experience in terms acceptable to the audience who, then as now, might not accept the truth except in parables. Just as occurrences thrust out of mind during the day return at night in the disguised symbols of the dream or nightmare, so Prometheus, the one most in tune with his subconscious, spoke through the collective dream of art as embodied in rhythm, organised movement or ritual, and symbols which said one thing and meant another, to make the truth palatable, a truth which was essential for fresh energy, the Herculean strength of Chiron's health-giving catharsis.

We shall return to Prometheus, but consider now the third stage. This simplified matters by reducing polytheism to monotheism. A single godhead now replaced the many divine sources of power or force. This did make experience more intelligible, but it left one major unresolved paradox. In fact, where the Devil is given equal credence with God we do not really have monotheism at all. However, it was maintained that one God was the source of life, and the Devil was his opponent destroying where He created. Man was exhorted to invest in God rather than sup with the Devil as a matter of self-interest. Prometheus merged into Christ who — whether as a man deified, or God incarnate — gave the gift of eternal life and personified the behaviour necessary for this gift. The principles of conduct embodied in the Hindu *Bhagavad Gita* or *Song of God* are, as Gandhi maintained, also biblical. The simplification of monotheism resulted in a further identification of man's behaviour now as " good " or " bad," with a commensurate increase in the need for personal responsibility, even as behaviour was still seen as subject to divine, or devilish, intervention.

Here, in fact, is where we reach the unresolved paradox — of an omnipotent and good God who yet permits evil. This was the dilemma fought so bravely by John Milton as he puzzled over a God whose countenance was so " contrarious " to man, " with no regard of highest favours past from thee on them, or them to thee of service." (*Samson Agonistes*, pp. 669-685.) Yet he made clear that Paradise — within finite limits, a pleasant state of mind — is lost by disobedience and regained by obedience. Disobedience or obedience to what? To God, i.e. to the dictates of conscience — as Providence speaks now from within.

Today art still consists of a pattern-orientated, rhythmic, symbolic activity, but the high priests, the Promethians, are now the poets who look ahead, rather than those who look back with the rituals of symbolic ceremony and hymnal chant. Prometheus

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

reappeared in Christ, Hamlet, Shelley — a host of artistic manifestations over the centuries which, thus, constitute still an age of kings.

However, what of this great unresolved paradox — of a good, omnipotent God who permits evil and its consequent suffering? This paradox embodies also the ambiguities of good and evil themselves, as in various circumstances good could produce evil and evil could produce good, and, as Hamlet pointed out, nothing is good or bad but thinking makes it so. So, either with the abandon of Falstaff or the denials of Faustus, the way was cleared for the next and fourth stage in the evolution of man's sense of religion, in his attempts to ascertain what it is all about.

One of the first to lose patience with unsatisfying and unsatisfactory speculations was Sir Francis Bacon — whose life was ideally suited to an appreciation of the ambiguities of good and evil. He believed that it would help to ascertain God's purpose if we studied His methods — that we should use a thermometer instead of guesswork for the temperature. Thus began the process now fully launched as the scientific method.

This process led, in the nineteenth century, to Darwin's master key, the theory of evolution. This explained how species developed from a common origin. With this theory and its developments man has the " how " of life — the scientific knowledge of its development from simple to complex, from lower to higher forms in competitive struggle or classical conflict. Great minds building on this " how " bring us nearer to a more objective version of " why." In so doing, the fatal paradox left by all the higher religions in stage three can be resolved. This resolution offers the foundation for today's new evolutionary " religion " or humanism.

To understand this it is necessary first to see how evolution works. Many fine imaginations have illustrated this including Hegel, Marx, Herbert Spencer, T. H. and Sir Julian Huxley, Alfred North Whitehead and Arnold Toynbee. Herbert Spencer's version is one of the most scientifically objective, that is, most open to experimental verification in any sphere of activity or evidence. Marx's version emphasises the environment as the governing factor; Spencer — like Toynbee and Jung — elevates mind.

Spencer[1] notes the existence of God as a cause of the effects examined, God thus becoming, if unknowable, nevertheless " a datum of consciousness." Thus Spencer's propositions seem genuinely fundamental where Marx's are not, just as Toynbee's version of history is profounder than those placing all emphasis on the influence of environments.

[1] Herbert Spencer, *First Principles*, 1862, pp. 494-509.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Spencer explains evolution thus. Permeating the universe is a single force acting in two ways simultaneously through matter and motion. One aspect integrates while the other disintegrates. The space-time continuum is necessary to understand their effects in what could be called the Law of the Pendulum. This applies to all aspects of everything created, whether our individual lives, political changes, or expanding galaxies.

Let us suppose this force to be distributing itself in accordance with a moving pendulum. It starts, say, horizontally on the right, at rest or fully integrated. As it swings down matter yields to motion. When vertical, motion or disintegration has most effect. The parts of whatever is engaged in the process will now be most diffused whether an army on the move or a child on a swing. As the pendulum moves on up to the left, motion yields to matter, which is again reintegrated when once more at rest. But while diffusing, the parts are multiplying as, for example, in population changes.

Spencer defines his law as follows: "The concentration of Matter implies the dissipation of Motion, and . . . the absorption of Motion implies the diffusion of Matter." While concentration and diffusion continue at the same time — and have their own secondary effects *ad infinitum* — each predominates alternately. When concentration predominates the result is peace, romance, philosophical synthesis, liberal and humane legislation. When diffusion or dissolution predominates then the opposite effects are found of war, realism, philosophical analysis, loss of values and reactionary legislation.

But as each sweep of the pendulum brings greater complexity of parts, the process is one of growth, and reintegration achieves a higher form. Where force is lacking fossilisation results.

In religious or symbolic terms concentration is God, while diffusion, dissolution or the destroyer is the Devil. But as diffusion produces greater complexity, which is a necessary prelude to growth, then the Devil becomes simply the means to God's triumph. Thus the paradox left by the higher religions is resolved in a single force producing through periodic destruction periodic growth — if the water supply is not cut off.

Wherever Spencer's law is tested the evidence seems to verify it whether in the infinitesimal rearrangements in the brain, the alternations of romance and realism, philosophy, politics and society, or the evolving universe itself. Spencer offers a master key to the whole process.

In the light of quantum physics, Spencer's fundamental propositions may not now be fundamental enough. Even Bertrand Russell is prepared to gamble on the persistence of matter if not on the law of gravity — so Spencer's "Indestruc-

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

tibility of Matter" may hold good, bearing in mind that matter is only energy formed to a pattern. However, his "The Continuity of Motion" may not be quite right if energy at its smallest, in quantums or photons, is discrete when looked at bit by bit. Yet the *effect* is of continuous motion. Similarly, perhaps his "The Persistence of Force" should be replaced by "The Distribution of Energy," a distribution leading to very forceful effects.

If quantum physics appear rooted in chaos or chance, they soon seem to yield to law and order aiming at stability. It is rather as if a heap of indeterminate iron filings were being subjected to a strong magnet turning their chaos into order. It is unfortunate that Hitler and Mussolini still have so much magnetism, leading eventually to apparent chaos again. By the time we get to biology, the organism seems very ingenious in dodging any random effects. Professor C. R. Frisch, F.R.S., in a talk on causality entitled *A Few Ideas* on the B.B.C. in 1964, said:

> Indeed, the more we study living organisms, the more we admire the cunning with which they exploit those features of quantum physics which make for stability and avoid the consequences of those uncertainties that go with it.
>
> The looseness which is inherent in quantum physics may account for an occasional involuntary twitch; but my will is free — that is, free to act on all the information I have — only so far as my brain is subject to causality.

So Spencer's superstructure, his Law of the Pendulum seems to remain valid. As Einstein said, an unbelievably high intelligence must be at work putting himself or itself into his or its creation as a novelist into his novel. The odds against chance arranging the proper chemicals into proteins are so high the earth just is not old enough to permit chance to do it. And then the proteins still have to be animated.

As far as man's religious sense is concerned, this theory must be used with such as Toynbee's *A Study of History* — which shows the challenge to be spiritual as must be the response — and Jung's interpretations of myths, particularly as amplified by Erich Neumann.[2] These show that the true meaning of action is found not in its external appearance but in its inner significance. For example, military (or technological) success may actually signify a breakdown as with Sparta. A spade may be a spade but a cross is not just a cross. What is carried up the hill is not simply

[2] Erich Neumann, *The Origins and History of Consciousness*, Princeton and Routledge & Kegan Paul, 1954.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

heavy timber but symbolically the dual force of evolution. If man is the steering wheel, woman is the horse-power.

In fact, as matter becomes revealed as nothing but arrangements or patterns of energy, the world, the universe, may be seen not only as a stage but as a television screen compounded of bio-chemistry and mathematics worked out in accordance with the Law of the Pendulum in its infinite variations, however rudimentary our present understanding of its essence.

There is one other concept which must be taken into account in this fourth stage of the development of understanding. This is the concept of universal immanence. In the first three stages the prime force, or God and the Devil, were seen to act arbitrarily from outside, intervening at will in man's affairs. Now however, immanence sees the force expressing itself from within, all created. In man the internal drive would be through the subconscious self interacting with the environment through the conscious or outer self, the individual rooted in the vast collective unconscious as it forges Hegel's World Spirit and History.

If immanence and the Law of the Pendulum are understood and accepted then all becomes necessity with nothing left to chance as a devilish divinity shapes our ends. Our individual performances, though predetermined, depend on the extent that we can work with evolution and not with dissolution, although both are needed — sin is indeed original, but in being immanent it belongs also to the Creator. Thus while there is, perhaps, now no blame there is still inadequacy leading to error.

Across the world we are scattered in many millions, all at different stages in the climb to the summit of our spiritual Everest. Primitive tribes abound; those who have evolved civic consciousness in the frontal lobes to wake up from the nightmare of unconscious behaviour are few. " Good " has become simply that which pulls together; " bad " is that which pulls apart. Both are needed but the law of the pendulum ensures that bad is the means to good as long as the swings continue.

In times of disintegration expression will be symptomatic of disease, reveal a loss of integrating values, encourage and excuse promiscuity and expediency — it will represent the carnal assault instead of self-sacrifice. The Devil, through Falstaff and Faustus, will triumph. The individual or society, if still possessed of enough force, must, as the pendulum moves up, pull itself together as batteries recharge. New ideas will again bring control or mental mastery; art will again resurrect the healthy symbols or signposts pointing up instead of downhill. As disease is cured, the vulture of guilt is removed and Prometheus the poet and the artist is free to tell the " new " truth in a ritual which must be both pleasing and well made.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Thus, even in this age of reason, of analysis, let us be grateful for and give all help to Prometheus or the imagination. For now he can be seen as the one who thinks efficiently in the frontal lobe, whose task, according to Sir Russell Brain,[3] is "to integrate the cortical function which we may broadly call "knowledge," with the diencephalic function which we may broadly call "feeling."

The forethinker is thus not only one who can think ahead but one who can think in the frontal lobe; here the stolen fire from heaven, inspiration — breathed from within the genetic hierarchy immanently — becomes the electrical impulse passing through the neural sheath to make clear not only the nature but the purpose of existence.

The nature is shown by the Law of the Pendulum to be a process of conflict. Its purpose is to achieve a higher form of life, like a butterfly evolving from the grub in its cocoon or coffin.

[3] Russell Brain, *Some Reflections on Genius*, London, 1960, pp. 179-180. 180.

IMPORTANT REPRINT

Practical Considerations which are Fundamental in Bantu Affairs in Rhodesia and for an Understanding of Negroid-Caucasoid Problems Generally

by R. GAYRE OF GAYRE

Reprinted from THE MANKIND QUARTERLY
Vol. X., No. 2, October-December 1969
12½p $0.50

Published by

THE MANKIND QUARTERLY

1 DARNAWAY STREET, EDINBURGH. EH3 6DW, SCOTLAND

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

The Development of Culture in the Light of Archaeology

By MARIE E. P. KONIG

> Man, unlike animal, is capable of apprehending objectively the phenomena of his world, i.e., as aspects of a reality external to himself.—Kälin.

This ability of viewing the phenomena from a distance makes it possible for man to transform them into objects of his perception, to apprehend their essence and to convert it into concepts. This conceptual order and the manner in which it shapes our environment we call "culture."

Culture, in this sense, can be traced back to prehistoric times, to the most ancient concept-formations, as shown by archaeological material. This very broad view yields a picture of the entire process leading to an understanding of the origin and growth of cultural phenomena. We can elucidate the nature of this mental development by a look at tool types.

The oldest tools were all-purpose types, which correspond to the general concept of work. The increasing precision (*Prägnanz*) of thought led to the development of many special tools designed for specific purposes and pre-supposing a number of specialized concepts. Every age had its own instruments corresponding to a certain stage of intellectual development, but always remaining "tools." This constancy of the essence of the concepts provides the link whereby the various stages of conceptual precision that are connected into a whole, the so-called conceptual pyramid. Since cultural growth is always predicated on mental achievement, the inner structure of the cultural pyramid corresponds to the scheme of the conceptual pyramid.

This plan forms the basis not only of work-directed thought. Man, being "situation-free" and "open" in relation to the environment, lacked the natural environmental bonds of the animal. He was forced to orient himself mentally, to fashion for himself a world view. It seems likely that, in accordance with the principles of spirit and mind, he first created a universal concept that gave to his life meaning and content.

This leads to a divergence between the development of the economy and that of the world-view. A long road had to be traversed before, starting with the all-purpose instruments, man thought up the numerous special instruments required by a peasant economy. On the other hand it seems likely that man managed relatively early to acquire a world-view that fitted the realm of his

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

experience. This is demonstrated by the fact that religious acts, which are based on world-view concepts, are much older than economic progress. Our task, therefore, *is to investigate the development of world-view concepts during prehistoric times by using methods consonant with the principles of mental processes.*

The act of thinking created spiritual order and, by the same token, "concept." The latter is the cause of every cultural achievement. Concepts, however, developed through increasing precision, as is shown by the example of tool types. We may therefore postulate a conceptual pyramid as the spiritual organizer of our archaeological material. Its study confronts us with two main problems:

1. The question of *developmental strata.* If we visualize the conceptual pyramid as being divided by a series of cross-sections, we shall be dealing with strata whose concepts are characterized by the same stage of precision. But as every specialization presupposed a creative act and creates new forms, so, too, each stratum has its own peculiar character. Such cross-sections may be carried out in various eras.

2. The question of *developmental direction.* If we were to rely on cross-sections alone we would be dealing simply with a disconnected chronological sequence, whereas development is determined by coherence. Cross-sections must therefore be viewed as links in a developmental direction, which unites them into a single whole. The example of the tool types showed us that the coherence of the developmental strata consists in the identity of the essence of the concepts. This identity of the various concepts was determined by the universal concept, which also supplied the principle for their arrangement. It formed the spiritual center of each developmental stratum.

These considerations demand special methods in the use of archaeological material as evidence. Space limitations make it necessary to indicate the developmental direction with the aid of only a few samples.

CULTURAL DEVELOPMENT IN THE SENSE OF DEVELOPMENTAL DIRECTION

It is difficult to reconstruct the mental situation of man's earliest times, to think like those people who had only a few general concepts. The terminology itself is apt to cause difficulty, for how are we to represent primordial concepts by modern expressions? We shall have largely to forego such attempts.

Furthermore philosophical discoveries do not leave behind such palpable evidence as meals and tools. Perhaps it was a long

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

way from thought to symbolic expression. Once the latter had become fixed, however, it continued to be handed on and was repeated in all subsequent developmental strata, even though in the form of a "survival." But we may well assume that man first of all created a universal concept of the world. This world-picture then developed through increasing precision. We shall attempt to discover its evidence in our archaeological material.

A. THE BEGINNING

When the world began to assume an intelligible form in the thoughts of man, he may have visualized the heavens as a vault which had its mirrorlike counterpart in the water. Therefore, he may have believed the world — the space within which his fate fulfilled itself — to be round. This would agree with the theories of depth psychologists who hold that the "Great Sphere" embodies the primordial idea. How could early man have given expression to this concept?

If we study those items among the early archaeological material which did not serve utilitarian purposes and which were endowed with "meaning," we are struck by the peculiar treatment of the skull.

We must bear in mind that man was capable of objective self-awareness, of viewing himself as the copy, mirror, and center of meaning of the universe, as the microcosm within the macrocosm. This may have led to the analogical conclusion which made of the round skull the symbol of the world, and at the same time of all forces that are at work in the world and determine man's fate. These aroused in him a sense of "direct dependence," the "*schlechthinnige Abhängigkeit*" of Schleiermacher, along with a religious feeling. The symbolic form that gives substance to religion we call "cult." Thus we speak, even in the time of Neanderthal man, of a "skull cult."

B. THE WORLD-PICTURE IN INCREASING PRECISION

Since all religious symbols were handed on, it is difficult to establish the exact sequence in which they were created. It is possible, however, to arrange the mental process according to the principle of increasing precision. This suggests the following sequence:

1. The World-Picture as Sphere

With the increasing precision of thought, the irregular shape of the skull must have appeared inadequate. Man, therefore, began

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

early to fashion "the sphere" from clay or stone. In La Quina a skull burial was found side by side with a carefully chiselled stone ball.

2. The "Bowl"

The world, on closer look, consisted of two parts, the upper and the lower vault. Both corresponded to the symbol of the "bowl." By widening the foramen magnum it was possible to shape the skull on this image (Monte Circeo). After the facial portions had been removed, the skull became the calotte, the "skull bowl" (Gibraltar). During the time of Neanderthal man this cosmic symbol was also being made of stone. A stone block into which bowls had been hewn had been placed on top of the isolated burial of a child's skull in La Ferrassie.

3. The Straight Line

Man became aware of a certain order in the world by observing the regular path of the heavenly bodies. The result of these observations was the recognition of the east-west direction. This axis divided the world into two parts and enabled man to orient himself. It determined, as early as the Neanderthal Age, the orientation of burials. Being abstract, this world axis may have been visualized as a straight line. Its representation was a visible line, but an analogy may also have been seen in the femur. Lines were scratched into a femur lying beside an east-west oriented burial in La Ferrassie. Such femurs with scratched-in lines found in Upper Palaeolithic archaeology are known as "cult staffs" (*Kultstäbe*).

The line is the oldest ideogram. With it man gained the ability to express his thoughts graphically. Its unassuming shape was a symbol of the entire as yet undifferentiated homogeneous world order. As such it represented both power and faith. Deeply cut straight lines in the cult caves of the Ile de France give evidence of the religious attitude of the men who made them.

4. The Cross

The increasing precision of orientation brought with it the subdivision of the world by the north-south direction. From this arose the scheme of the two crosslines. Evidence of the existence of this sign has been produced by the finds in Wyhlen (Baden), dating from the beginning of the Riss glaciation. It is also one of the oldest ideograms found in the caves of the Ile de France which, according to J. Baudet, belong to the Neanderthal Age.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

5. THE SQUARE

The cross marked the four points of the compass; the four corners of the world. The latter could therefore be visualized as having four corners, and be expressed graphically by the square. Countless squares were cut into the stone in the caves of the Ile de France. This ideogram is also found in the Upper Palaeolithic cult caves (Lascaux). There it is surrounded by paintings of animals. It is possible that man, at that time, already conceived of the world order as differentiated, and we may assume that these signs represent the symbolic expression of the specializations that had arisen. The world-picture itself always retains its spiritual centrality and homogeneity. According to the principle of increasing precision, we believe that it was represented by the square.

Religious symbolism was being retained. This is shown by an ideogram in the cave of d'Armont near Milly-la-Forêt. It consists of a cross whose four arms run into the four corners of a square. Two corners have been hewn into the shape of "bowls." These various ideograms could be combined into a single picture because, though they correspond to different stages of precision, their essence is the same. The concept of the square world is still in evidence in the Bible: "I saw four angels standing on the four corners of the earth, holding the four winds of the earth. . . ." (Revelations ch. VII, v. 1.)

6. THE "WHEEL"

In contrast to the square world, the round horizon, in connection with the circling vision of life, resulted in the ideogram which we call "the wheel." Here the cross is placed within a circle. Such signs were already being painted on pebbles during the Mesolithic Age. An impressive example is that of the Bowl Stone of Bunsoh in Süderdithmarschen. The stone forms the lid of a Megalithic burial. In addition to many "bowls" it contains a "wheel" whose four "spokes" are oriented exactly according to the four points of the compass.

7. THE ZENITH, THE NADIR

The crossing world axes revealed the center of the world — in the heavens the zenith, on the opposite side the nadir. This central point has played an important rôle in all ages, perhaps even during the Palaeolithic. Burials from the Aurignacian were accompanied by round bone discs whose engraved line systems crossed each other. The center is indicated by a round hole (Brünn). The concept of the heavens was embodied in the cupola-like ceiling of the cave. To be well-defined it, too, must have a central point. Three bull protomes were drawn concentrically

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

around this point in the cross-passage of the Lascaux cave. Also in that cave, in the " hall of the big bulls," there is a large round hole in the vaulted ceiling. It is, of course, a natural feature, but the pictures were consciously related to it.

The contrast to the " vault of the heavens " in the belief of man was provided by the other side, the " bowl " in a position of polarity. Its central point was the " nadir," and it could be represented accordingly. Well-preserved representations have been found atop Mount San Giorgio in Lake Garda. The bowls have a diameter of 60-80 c.m. In the center there is a hole-like depression. It was not meant to serve as a run-off, as a channel for that purpose was cut in the bowl's rim. This hole may well have had a symbolic meaning.

8. The World-Picture of the Megalithic Age

Millennia separate Upper Palaeolithic man from those men who erected the Megalthic structures, but the continuity in the development of tool types proves that there was no spiritual or mental break between the two ages. Even though the technique of stone placement was developed elsewhere and the skill penetrated only gradually into Brittany, the mental plan of these structures must long have been in the possession of European man. We have seen in Lascaux that man looked for a cave ceiling with a hole in the center. The shape of the ceiling in the " nave " of the same cave looks like the cross-section through this cupola. We see an arc whose apex supports the longitudinal section of the hole in the form of a hollow pinnacle. This scheme which was still vague during the Upper Palaeolithic Age was expressed in a definite manner by Megalithic man. He chiselled it into the walls of his structures. The largest such representation is found on the bottom side of the cover stone of the Mané Rutual dolmen near Locmariaquer. A square whose sides measure about 3.24 m. is surmounted by an arc whose apex has been drawn out like a nipple. Many similar ideograms (known in France as *bouclier-écusson*) are found in Megalithic structures. We distinguish two types: in accordance with the polarity of the zenith-nadir-concept, the apex of the arc is either drawn upward, or pushed inward. Both types are found in juxtaposition, for instance, in the " Allée Couverte des Pierres Plates."

The layout of the structures also fits in with this world-picture. A square chamber is surmounted by a round, stratified tumulus (Gavr' Inis). The same idea in a different technique was expressed in the l'Ile Longue dolmen. Here a round cupola was built atop a square chamber.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Apart from the ideograms mentioned above, the walls in the interior of the tumulus of Gavr' Inis are also adorned with squares showing the nipple-like zenith. This plan could have formed the prototype for the square stone chests. In the center of one of the sides there is a stone slab into which a round hole had been hewed, the so-called "soul orifice" (Züschen near Fritzlar).

The World-Picture of the Celts

We must again leap across a long period of time, to the close of prehistory. Celtic tribes were now living in the land of Megalithic structures, and they were using them for their religious celebrations. Among the authentic documents which they have bequeathed to us are their coins. These show that the Celts inherited the spiritual values of prehistory, but that they also established contact with the cultures of the ancient world which had meantime entered into the historical developmental stratum. Whereas prehistoric man discovered the cosmic order, historic man makes the transition to that stage where the observation of the world order leads to the conclusion that there is an organizer, whom man then endows with human attributes.

This human figure was in need of insignia. The gods of Mesopotamia therefore wear a tiara, whose significance is explained in a Sumerian hymn to Inanna, the moon goddess. In it she tells about her father: "Thou hast set Heaven as a crown upon my head." We also know crowned heads from the coins of many Celtic tribes (Osismii, Santones, Pictones, Aulerci, Andecavi, etc.). The head wears the ideogram of the heavens which we already met with in the Megalithic structures — the arc with the emphasized apex. In Gaul, however, the old tradition was never broken. Old symbolism still lived in the consciousness of man. This symbolism, in accordance with its cosmic nature, was being written upon the "crown" of the gods. We find here the "sphere," the "line." (The latter now cuts through the zenith, and can therefore be understood only as the axis of the heavens.) We recognise the cross and the "boar," a pictorial symbolism of the Upper Palaeolithic known to us from the representation on the cave ceiling of Altamira.

If we had lost all documents of our past it would still be possible to reconstruct our mental-spiritual development with the aid of these and other Celtic coins and on the basis of the principles of developmental psychology.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Israel and South Africa: Two Beleaguered Elites

By NATHANIEL WEYL

In the Middle East, Israel is an enclave of creativity in a surrounding desert of peoples who have not made a single significant contribution to the world in the last four centuries. In sub-Saharan Africa, the white people of South Africa and Rhodesia are similar creative enclaves in a sea of primitive mediocrity. The Middle Eastern societies are the backwash of former higher civilizations which have materially decayed to a point where there is a danger of extinction; the Negro societies of sub-Saharan Africa have not risen to the civilization level.

There are, of course, a few islands of accomplishment in this vast Near-Eastern area and there are variations in intelligence among the peoples, classes, castes and tribes which comprise the Arab-speaking portion of Islam. The Lebanon is more like a dynamic European state than any of the others, with people of greater ability than the average in the Near East. Nevertheless, the Arab world, as a whole, is non-creative. This cannot be attributed primarily to such environmental factors as poverty and malnutrition. The Near East was an area of prodigious civilization-building and cultural ferment for several millennia during which the masses were poorer and worse fed than they are today. Poverty did not prevent China from producing Nobel physicists or India from giving the world distinguished mathematicians, scientists and creative writers.

No Arab has ever won a Nobel prize in science; no modern Arab has, to my knowledge, made any first-class invention or discovery. Over recent centuries the Arabs have managed to ruin their land resources* by inept agricultural practice and to squat parasitically on vast oil resources which more energetic and able peoples have developed. The so-called Arab renaissance involves chiefly the emergence of an hysterical, pseudo-intellectual élite, almost entirely verbal and legalistic, concerned not with taking constructive steps to improve the squalid and inert Arab society, but with voicing largely imaginary grievances and blaming other people for its own failures.

* And those of the Roman Empire in Africa where they destroyed the irrigation systems and other conservation factors.— EDITOR.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

The Egalitarian Fiascos

Under Eisenhower, Kennedy and Johnson the United States squandered hundreds of millions of dollars in underwriting the fledgling black states of Africa which emerged from the suicide of the colonial system. An area of continental dimensions, which had formerly been an island of progress and order in a world shaken by wars and revolutions, was transformed into an inferno in which tribalism replaced nationality, genocide order, arbitrary power law, and dictatorship institutional government. This reversion towards barbarism was bewildering and unexpected to those egalitarian politicians who believed that all races and peoples are essentially equal in innate ability, that history and institutions are irrelevant to the forging of viable societies and that democracy on the American model is a universal panacea.

The Soviet decision to pour $3 billion of arms into Arab countries whose armies lacked the ability, courage, and self-reliance needed in modern war derived from exactly the same illusion that the human element is unimportant. The concept of man as a homogeneous abstract entity has unfortunately been almost as popular in the United States as in the Soviet world. John Locke with his psychology of *tabula rasa* exerted a potent and malign influence on the Founding Fathers of the American Republic. The theory that men are equal in innate capacity had been propounded with equal vigor by Rousseau and other *philosophes*. Since the Declaration of Independence was designed to win French backing for the American cause, it contained the resounding slogan: "All men are created equal." While Thomas Jefferson was much too intelligent and sophisticated to believe this,[1] his words became part of the American creed. In its Communist form, as in Rousseau's system, the *tabula rasa* theory conceived of men's minds as interchangeable, as blackboards on which the hand of authority could write whatever it fancied. Even though propagated in the name of democracy, this egalitarian hypothesis is inherently destructive of free societies since it denies

[1] Contrary to the general, ill-informed opinion, Thomas Jefferson was not an egalitarian but rather the outstanding élitist political philosopher whom the United States has produced. In characterizing proposals for public education in his *Notes on Virginia,* Jefferson wrote: "By this means twenty of the best geniuses will be raked from the rubbish annually and be instructed, at the public expense, so far as the grammar schools go." He once defined the American purpose as "an aristocracy of achievement arising from a democracy of opportunity". On 28th October 1813 he wrote to John Adams: "For I agree with you that there is a natural aristocracy among men. The grounds of this are virtue and talents. . . . The natural aristocracy I consider as the most precious gift of nature for the instruction, the trusts, and government of society."

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

the uniqueness of the individual and hence, by implication, the crucial importance to society of the right to dissent.

Elsewhere I have attempted an analysis of the historic, institutional and biogenetic causes of the torpor and intellectual inertia of the Arab world.[2] Without retracing this ground we can say that the denizens of Arabic-speaking Islam are essentially people who live outside of history and the modern world, who contribute little and achieve little, who are imbued with power to destroy, but not to create, and who constitute the ashes or embers of once viable culture-civilizations.

South Africa and Israel

The large and self-evident similarities between South Africa and Israel have been somewhat obscured by the difference in the ideologies of the two countries and the relationship between them has sometimes been characterized by ambivalence.[3] Jewish fears of neo-nazism and liberal hatred of South Africa have combined to magnify the importance and persistence of the anti-Semitic and pro-Hitler sentiment which existed in South Africa during the 1930s and early 1940s.

The Afrikaners, like the ancient Hebrews, were " people of the Book ". To them the Old Testament was both divinely inspired history and their guide to moral conduct. Addicted to a rigid Calvanism, they trekked into the wilderness of the interior to build their own country and govern it themselves on religious principles and without British domination. Since the Bible was usually the only book of the *Vortrekkers* the parallel between their wanderings in the wilderness and those of the ancient Hebrews in the land of Canaan made a deep impression on their minds. In their many victorious struggles with the Zulus and other alien peoples the Afrikaners again saw themselves playing the rôle of the Old Testament Hebrews, that of a righteous minority inspired with a divine mission and guided by Providence.

During the years of Nazi rule in Germany South African attitudes toward the Jews changed and anti-Semitism became rife.

[2] Nathaniel Weyl, " The Arab World: A Study of Biogenetic Disintegration," The Mankind Quarterly, Vol. VIII, No. 1, July-September 1967, pp. 26-43.

[3] In this context South Africa means the white population of that country only since it alone rules and since the South African whites, whether rightly or wrongly, consider that they and the Bantu lack a common language, culture or territory and hence do not constitute either a multi-racial community or a nation. The color bar has been the traditional means of enforcing this separation where the two races occupy the same terrain. *Apartheid* is the emerging substitute solution, designed to make the two races allopatric.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Its basic causes seem to have been the conspicuous presence of Jews in the South African Communist Party and in other subversive movements and also in the mining and financial plutocracy. A poor white problem among the Afrikaners during this era contributed to unrest and hatred. Pro-Nazi movements sometimes won public sympathy because Britain was regarded as the traditional enemy and because of the large population of German stock in South Africa and South West Africa.

The Nationalist electoral victory in 1948 caused consternation and gloom among South Africa's Jewish population. Jewish fears of an outbreak of anti-Semitism, however, were almost immediately proved groundless. Dr Daniel François Malan, the South African Prime Minister, immediately gave the nascent state of Israel *de jure* recognition and permitted South Africans to volunteer in the armed forces of the new Jewish state. Consequently, more Jewish volunteers enlisted from South Africa than any other foreign state and the nucleus of the Israeli Air Force consisted of South African contingents.[4] In addition, Dr Malan was the first British Commonwealth Prime Minister to visit Israel. On his return he told a Jewish audience in Cape Town: "The greatness of a nation does not, after all, consist in the vastness of its wealth but in the extent and the greatness of its inward qualities of spirit and soul." In an interview with leading members of the Jewish Board of Deputies, the central organization of South African Jewry, Dr Malan pointed out that his government "stood for a policy of non-discrimination against any section of the White population of South Africa. . . ."[5] In a major policy statement of July 8, 1951, the South African Jewish Board of Deputies responded to these approaches by declaring that it represented the interests of the entire Jewish community and hence could not adopt any partisan political position.

An Afrikaner editor defined his country's policies in these succinct terms: "We have two aims. Not to drown in a British sea; and not to drown in a Black sea. Our aim is Afrikaner survival."[6] Similarly, the Jews of Palestine had fought for years against the British and the state of Israel was continuing to fight against engulfment by an Arab sea.

Saluting the new state of Israel, the leading Nationalist newspaper, *Die Burger,* wrote in May 1948:

> The small Jewish community in Palestine, barely more than 600,000 strong, wishes to carve out for itself and for

[4] Henry Katzew, *Apartheid and Survival,* Simondium Publishers, Cape Town, 1965, p. 13.
[5] Henry Katzew, *op. cit.,* p. 17.
[6] Henry Katzew, *op. cit.,* p. 19.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

racial brethren without a homeland a place on the map against the opposition of hostile states with a population of 30,000,000-40,000,000. If this is folly, then it is folly on an heroic scale.

At a time when exchange control prevailed in South Africa the Nationalist Government permitted the transfer of funds to Israel. In 1952 Dr Malan committed South Africa to defend the Middle East " because that is the door through which the (Communist) enemy will enter Africa. . . ." It was evident that he viewed Israel and South Africa as bastions of the Free World.

For 15 years the Nationalist Press consistently praised and supported Israel, sharing the distinction with the Press of Scandinavia and Holland.

Then in 1961 the President of Upper Volta visited Israel and the two countries issued a joint statement condemning all racial discrimination and *apartheid* in particular. Dr Verwoerd's newspaper, *Die Transvaaler*, expressed its " dumb amazement " at this unexpected and gratuitous attack. It asked:

> And is there any real difference between the way that the people of Israel are trying to maintain themselves amid non-Jewish peoples and the way the Afrikaner is trying to remain what he is? The people of Israel base themselves upon the Old Testament to explain why they do not wish to mix with other people; the Afrikaner does this too. . . . Has not the time come for Jews in South Africa to do some information work in Jerusalem?

The editorial continued with a reminder that countless Jews were enabled to leave South Africa to fight for Israel's survival and to help create the new state. " All this has been connived at with good will while an American Jew who does military service in Israel immediately loses his citizenship. Is Israel willing to sacrifice all this? If so, she must say so."[7]

Later in 1961 Israel joined 66 other nations in censuring a speech to the United Nations by Mr Eric Louw, South African Minister of Foreign Affairs. This attack on freedom of speech was characterized by Mr Louw as an act of " hostility and ingratitude ". The *Jewish Herald*, organ of the Revisionist Jews who are nationalist rather than socialist, thought that Tel Aviv's attack on " one of Israel's first and staunchest friends " was " unwarranted, unjustified and politically unrealistic ".

The cordial relations which had prevailed between the two countries were progressively destroyed because of the ideological intransigence of the Israel Government — particularly that of

[7] Henry Katzew, *op. cit.*, p. 26. Actually, American Jews who fought for Israel were not stripped of their citizenship.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Eshkol — on the race issue. In 1963 the Israeli representative to the United Nations, who boasted that his country had been among the first to bar shipments of arms and strategic materials to South Africa, stated that the Jewish people stood " in the vanguard of the battle against any form of discrimination ", and advocated decisive, concerted steps to end *apartheid* in South Africa. This declaration " deeply distressed " the Jewish Board of Governors which had never condemned South Africa's racial policies. When Israel lowered the status of her diplomatic mission to South Africa Prime Minister Verwoerd called the step " a slap in the face for South African Jews, who did not deserve it ". He considered the action merely a political maneuver in the hope of " currying favor with the non-white states in Africa " and correctly predicted that, regardless of how much Israel pandered to these black republics, they would leave her in the lurch in the event of another showdown with the Arabs.

Israeli technicians were sent *gratis* to black Africa and Israeli officers did their utmost to train Congolese military men. In 1964 Eshkol joined Jomo Kenyatta in pledging co-operation to end colonialism. The Israeli Foreign Minister denounced what he called " the usurping of power by an illegal regime in Rhodesia " and Prime Minister Eshkol made the historically absurd assertion that Jews and Negroes were bound together by centuries of oppression and had won their independence simultaneously. It apparently did not occur to him that there could be a significant distinction between a persecuted élite and primitive peoples who were enslaved to do unskilled manual labor.

It seems not improbable that Israeli hostility to South Africa will abate. The similarity of the two states in respect to their political position and problem of survival may be officially denied in Jerusalem but this does not mean that it is not privately recognized. The bread Israel cast on black waters never returned. Out of military and survival crisis Israel is developing a tougher, more realistic and more nationalistic leadership than that of Levi Eshkol.[8] In the United States Jewry has discovered that the Black Power movement and other Negro groups expound a virulent anti-Semitism at times reminiscent of that of the Nazis and this despite (or is it because of?) the fact that the Jews, more than any other group in the United States, have fought to advance the Negro and remove his disabilities.

The world Communist movement clearly recognizes the community of interest and position between Israel and the white states of southern Africa. At the Eighth Council Meeting of the Afro-

[8] A Tel Aviv joke of two years ago revolved around the fact that Ian Fleming's fictional counterspy had the code number 007. " What is the difference between Eshkol and James Bond? " The answer: " Seven."

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Asian Peoples' Solidarity Organization (AAPSO) in Nicosia in February 1967 a General Declaration was passed which condemned Israel's policy towards the Arabs, the racial policies of South Africa and " genocide by the Portuguese in Africa ". At the International Conference in Support of the Peoples of South Africa and the Portuguese Colonies, which met in Khartoum in January 1969, Israel and South Africa were assailed as the " two imperial pincers in the north and south of Africa ".[9]

Thus alignments are becoming clarified. The Communist world is successfully mobilizing the have-not peoples — poor, undeveloped, ill-equipped with intellectual or executive élites — to overrun and conquer the enclaves of order and prosperity which are ruled by more creative elements. The illusion is propagated that the have-not peoples can enjoy prosperity by the simple expedient of plundering the enclaves and there is little understanding of the fact, so painfully visible from Algeria to the Congo, that once the creative element is driven out, dispersed or killed, wealth vanishes, production halts and civilization disintegrates. The class war of Marxism has become primarily a war based upon race and nationality. In Toynbean terms, the centers of Western civilization are under combined assault from the external proletariats of Africa and Asia and from the internal proletariats produced in the non-white slums.

The Middle East and the West

In many ways the revolutionary forces in the Arab world are engaged in a struggle to perpetuate its backwardness and widen the chasm separating it from the more creative societies. They are committed to a war of extermination against the Israeli élite enclave. Their tendency is to shift power from the business community and the economic upper strata to the professional revolutionaries of the intellectual *demi-monde*. In Egypt the Christian minority is viewed with suspicion, discriminated against and treated as a potential security risk because of its ties with Western civilization and because it is more intelligent, energetic and resourceful than the Moslem mass.* The regressive nature of the revolutionary regimes, their rôle as enemies of the natural

[9] International Documentation and Information Centre, *Afro-Asian Peoples' Solidarity Organization (AAPSO)*, The Hague, 1969, p. 67.

* In Palestine the same thing is true. The Christian Arabs are creative, and even where they have become victims of the Israeli-Arab conflict they do not remain as permanent inhabitants of refugee camps. Although the Christians of Palestine and Egypt are " Arabs " they are, in fact, racially of a different matrix as we have pointed out elsewhere, being more Nordo-Dinaric than are the average Arabs.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

élites, is highlighted by their desire to break the ties of the Middle East with Europe and to turn instead towards inner Asia and Negro Africa.

The revolutionary regimes tend to be non-creative, technologically and militarily incompetent, unstable and insatiate in their ambitions because of the disproportion between their appetite and their ability. It is perhaps foolish to believe there is any concession which the West could wisely make that would satisfy their greed or buy their friendship.

The alternate policy is overt Western support of the viable élite bastions in the Middle Eastern and black African areas. Of these, the most important are Israel, South Africa, Rhodesia and the Portuguese overseas dependencies. Both Israel and the countries of southern Africa under white rule are anxious to assist their unfortunate neighbors in moving towards modern civilization and achieving order, constructive purpose and representative institutions. These strongpoints are natural centers for the outward radiation of Western objectives in this region.

NOUVELLE ECOLE

REVUE DE RECHERCHE ET D'ETUDES SUR LA CIVILISATION EUROPEENNE

Parmi les textes publiés récemment: *L'écriture runique* (Alain de Benoist); *Le problème de l'avortment* (Jean-Claude Valla); *Les greffes d'organes* (Roger Vétillard); *Le sanctuaire de Stonehenge* (Jean-Jacques Mourreau); *Psychologie raciale et intégration scolaire* (Alain de Benoist); *La condition féminine au Moyen-Age et dans l'Antiquité* (Jean-Claude Bardet); *Empirisme logique et "Wiener Kreis"* (Louis Rougier); *L'écriture chinoise* (Guy Brossolet); *Bertrand Russell et les mathématiques* (Robert Blanché); *Le nouveau calendrier liturgique* (Alain de Benoist); etc.

NOUVELLE ECOLE

B.P. 129-07/75 — PARIS 7 (FRANCE)

Le numéro: 7 FF; *L'abonnement annuel* (six numéros): 40 FF

Spécimen gratuit sur demande.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

The Measurement of Cultural Development in the Ancient Near East and in Anglo-Saxon England:

A Review

By DONALD A. SWAN

In the latter half of the nineteenth century the principle of evolution transformed the outlook of many sciences. First applied to the study of biology and physical anthropology, it was soon extended to the fields of sociology and cultural anthropology. Scientists such as Herbert Spencer (*The Study of Sociology*, 1873) sought to determine regularities or sequences in cultural development, measure cultural change, and compare cultural levels in contemporary and past societies. In the twentieth century, however, " anti-evolutionism and cultural relativism held sway in American anthropology." Writers such as Alexander Goldenweiser (*Anthropology*, 1937) denied that cultures could be rated objectively or compared over time.

In recent years there has been a renewal of interest in the study of cultural evolution and in the rating of cultures. Raoul Naroll[1] constructed an *Index of Social Development* based upon three differentially weighted criteria—the number of craft specialities, the number of " team types," and the size of the largest community in a society. Applying this index to a sample of 30 societies, Naroll could quantitatively assess their social development. " The societies ranged from the Yahgan, with an index of 12, to the Aztecs, with an index of 58." The great German anthropologist Friedrich Keiter[2] also developed methods of quantitatively comparing art forms and literary styles in different cultures.

One of the most active workers in the field of quantitative cultural anthropology is Dr Robert L. Carneiro of the American Museum of Natural History in New York City. Dr Carneiro[3] has pioneered the application of scale analysis to the study of cultural evolution.

[1] Raoul Naroll, " A Preliminary Index of Social Development," *American Anthropologist*, Vol. 58, 1956, pp. 687-715.

[2] Friedrich Keiter, " Race and Culture," in *Race and Modern Science* (edited by Robert E. Kuttner), Social Science Press, New York, 1967, pp. 333-365.

[3] Robert L. Carneiro, " Ascertaining, Testing and Interpreting Sequences of Cultural Development," *Southwestern Journal of Anthropology* Vol. 24, 1968, pp. 354-374.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

In the course of this work he developed the *Index of Cultural Accumulation* for objectively measuring cultural complexity. This index is the total number of cumulating traits of a society—i.e., the number of cultural traits which once adopted by a society tend to be retained while other traits are being added.

In an early study of cultural development, Dr Carneiro[4] compared 100 different societies with respect to 354 cultural traits. The list of cultural traits included: "surplus food production, stone architecture, permanent settlements, currency, markets, craft specialization, taxation, social segmentation, class stratification, full-time political leader, the corvée, military conscription, census, courts of law, priests, temples, metallurgy, and so forth." The index scores of 10 of the 100 societies are presented in Table I

It is the purpose of this paper, however, to review one of Dr Carneiro's more recent studies in the field of cultural evolution—an analysis of cultural development in the Ancient Near East and in Anglo-Saxon England.[5] The primary interest of Dr Carneiro in this study was the determination of rates of cultural evolution.

A preliminary analysis was made of five Near Eastern cultures spanning a time period of some 7000 years. Information on the presence of cultural traits in these societies was obtained from archaeological and historical data. The scores on the *Index of Cultural Accumulation* for the five Near Eastern cultures are presented in Table II.

Statistical analysis of the index scores demonstrated an upward rectilinear course of cultural development over the 7000-year period. A regression line closely fitted the data. However, the few cultures represented over such a long period and the lack of actual historical continuity between the different stages permit only tentative conclusions to be drawn regarding the course of Near Eastern cultural development. Dr Carneiro believes that if cultural trait data were obtained from two dozen more societies, the course of cultural development "would certainly be upward," but with plateaus and regressions here and there.

Hence, Dr Carneiro decided to measure "a segment of cultural evolution which did constitute a true historical sequence." The society chosen for analysis was Anglo-Saxon England from 449 to 1087 A.D. Ample historical data are available for this society and considerable cultural change occurred during this time period.

449 A.D. is the date traditionally given for the arrival in England of the first Germanic settlers under the warrior-leaders Horsa and

[4] Robert L. Carneiro, "Scale Analysis, Evolutionary Sequences, and the Rating of Cultures." *Handbook of Method in Cultural Anthropology* (edited by Raoul Naroll), 1969.

[5] Robert L. Carneiro, "The Measurement of Cultural Development in the Ancient Near East and in Anglo-Saxon England," *Transactions of the New York Academy of Science*, Vol. 31, 1969, pp. 1013-1023.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

TABLE I

The Index of Cultural Accumulation for ten societies* (*Carneiro*, 1969)

Society	*Index score*
1. New Kingdom Egypt	329
2. Inca	288
3. Ashanti	198
4. Hawaiians	127
5. Acoma	82
6. Ao Naga	49
7. Cheyenne	39
8. Nuer	28
9. Copper Eskimo	10
10. BaMbuti Pygmies	3

* The Index of Cultural Accumulation is the total number of cumulating traits of a society—i.e., the number of cultural traits which once adopted by a society tend to be retained while other traits are being added.

TABLE II

The Index of Cultural Accumulation for five Ancient Near Eastern Cultures (*Carneiro*, 1969)

Near Eastern culture	*Index score*
1. New Kingdom Egypt (B.C. 1350)	329
2. Sumeria (B.C. 2500)	257
3. Jericho (B.C. 6000)	55
4. Jarmo (B.C. 6750)	38
5. " Incipient Agriculture " (B.C. 8000)	14

TABLE III

The measurement of cultural development in Anglo-Saxon England (450-1087 A.D.) (*Carneiro*, 1969)

Year (A.D.)	*Number of cultural traits present*
450	159
500	187
550	210
600	245
650	278
700	284
750	285
800	289
850	293
900	302
1000	310
1050	310
1087	312

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Hengist (R. H. Hodgkin, *A History of the Anglo-Saxons*, 1952)*. The terminal date of 1087 A.D. is the year of the death of William the Conqueror. Thus, the author could "make use of the detailed data contained in the Domesday Survey of 1086" (F. M. Stenton, *Anglo-Saxon England*, 1947). To facilitate analysis the seven Anglo-Saxon kingdoms of Northumbria, Mercia, East Anglia, Kent, Essex, Sussex and Wessex were treated as one cultural unit.

P. H. Blair's *An Introduction to Anglo-Saxon England* (1959), C. Water's *An Economic History of England: 1066-1874* (1945) and M. E. Seebohm's *The Evolution of the English Farm* (1927) were used as sources to provide information on the initial appearance of a large number of cultural traits. A list of 319 traits was chosen for study—since their presence and date of first occurrence could be established with certainty. The distribution of the number of these cultural traits in Anglo-Saxon England at 50-year intervals is shown in Table III. Another 165 cultural traits which were found to occur in the Anglo-Saxon period were omitted from the study since they could not be dated with sufficient accuracy.

Statistical analysis of this data reveals that cultural development in Anglo-Saxon England can be divided into two distinct periods: 1. A period of regular and rapid development from 450 to 650 A.D.; 2. A period of regular but slower development from 650 to 1087 A.D. Two regression lines were found to fit the data quite closely:

$$\begin{aligned} &450 \text{ to } 650 \text{ A.D.}: && Y = .575X - 99.75 \\ &650 \text{ to } 1087 \text{ A.D.}: && Y = .088X + 220.80 \end{aligned}$$

where Y = the number of cultural traits present, and
X = the date in the Christian calendar.

The author discusses the reasons for this discontinuity in cultural development, since there are no documented historical events to explain the change. Dr Carneiro refers to Herbert Spencer's distinction between *growth* and *development* in cultural evolution—a distinction which he believes "is absolutely essential to a thorough understanding of cultural evolution." Following Spencer, "growth consists of an increase in *substance*, while development consists of an increase in *structure*." That is, growth—a quantitative concept—"is usually manifested by a proliferation of structural elements already present," while development (a qualitative concept) "is marked by the rise of new structural elements."

Examples are given of this distinction in Anglo-Saxon history. "The first water-driven grain mill in England was reported in 762 A.D. By 1086 the number of water mills had risen to 5600." The

* The probability is that Anglo-Saxon elements had already settled on the East Coast in Roman times, and this led to the necessity of having a *Comes litoris Saxonici* (Court of the Saxon). This does not, however, invalidate the author's argument.—EDITOR

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

former is an example of development, the latter of growth. Similarly, " the first royal estate in England appeared around 600 A.D. (development), while by 1086 the number of royal estates had risen to 1442 (growth)."

Dr Carneiro's trait list, however, measures " development, but not growth." No account is taken of the frequency of a trait after its initial appearance. Thus, as Carneiro notes, " a fully adequate measure of cultural evolution, then, should take account of the *quantitative* incidence of *qualitative* features." Regarding Anglo-Saxon history, Dr Carneiro concludes that from 450 to 650 A.D. " cultural advance in England was characterized primarily by development, while from 650 to 1087 it was characterized primarily by growth." Then, 650 A.D. " may mark a change in the manifestation of evolution more than a slowing down of the process."

Dr Carneiro concludes this study with a brief discussion of the " dynamics of cultural growth." He suggests that " an alteration between development and growth, with now one, and now the other predominating, may be an integral part of the normal course of cultural evolution." The translation into cultural evolutionary terms of concepts from the physical sciences—such as the principle of mass action in chemistry—is also advocated as a means of ascertaining broad regularities in cultural evolution.

All in all, Dr Carneiro has made a significant contribution to the field of quantitative cultural anthropology. The development and application by the author of research concepts, such as the *Index of Cultural Accumulation*, has greatly advanced the study of cultural evolution. It has also rendered possible the objective rating of cultures, the measurement of cultural change over time and the determination of rates of cultural evolution. The author has also indicated the need for objective measures of *cultural growth* to supplement those of *cultural development*.

Furthermore, Dr Carneiro's specific study of Anglo-Saxon England has demonstrated the high level of cultural attainment and pronounced development and growth of culture in this society. For it was in pre-Norman Anglo-Saxon England that magnificent illuminated manuscripts such as the *Lindisfarne Gospels*, the *Book of Durrow*, and the *Book of Kells** were produced, that masterpieces of historical narrative such as Bede's *Ecclesiastical History* were written, and that scholars such as Alcuin of York were active. And it was in Anglo-Saxon England that the foundations were established for the culture-creating achievements in science, literature and arts of the Anglo-Saxon people of later history.

* The *Book of Kells*, while of this period, was in fact a Celtic achievement. It may well be that Celtic civilisation, which in certain areas was in advance of the Anglo-Saxon, although it had little inheritance from Imperial Rome, ought to be taken together, to arrive at a definitive conclusion.—EDITOR.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

On the Snows of Annapurna

By ODETTE TCHERNINE

Don Whillans was on the successful expedition to climb the south face of Annapurna, Nepal, in March 1970. He and a fellow climber, Dougal Haston, had climbed ahead of the main team for the purpose of setting up an advance base in readiness for the final assault to reach the summit.

It was during this exercise that he had an unexpected experience.

He found a trail of footprints in the snow, and a few hours later sighted a mystery living creature from the spot where they were establishing their temporary hut. He had already taken a photograph of the tracks in the snow. It is the clearest and most definite picture of mystery tracks taken in the Himalayas or elsewhere since Eric Shipton discovered the imprint of a large primitive-seeming foot outlined in the snow of the Menlung Glacier. This was in 1951 when he and Doctor Michael Ward were on the Everest reconnaissance investigation.

Shipton's classic photograph has been published repeatedly since it was taken, causing great controversy. It is still the most challenging evidence of the Yeti, or Snowman, mystery. The measurements were about $12\frac{1}{2}$ inches in length by roughly $6\frac{1}{2}$ inches in width. The photograph shows its dimensions as measured in the snow against the head of Dr Ward's ice axe. Allowance must be made for melting snow having probably enlarged the alleged Yeti footprints to these dimensions. They could have been a little smaller on the creature's first treading. Sherpa Tensing — this was not the later Sherpa Tenzing who stood on the summit of Mount Everest with Sir Edmund Hillary — who was with Eric Shipton and Dr Ward on the occasion referred to here, calculated that the Yeti had passed that way roughly 25 minutes previously.

Now has come this new photograph Don Whillans took in 1970. It is equally challenging.

The Annapurna incident was not recorded in my latest book on the subject because the book's publication was imminent, all printing being completed, when the Annapurna expedition returned to Britain.

In brief and almost puzzled terms, Don Whillans told the Press reception of his strange experience.

I spoke to him before and during the conference, and a few days later saw him again, when he elaborated, still in questioning mood, on his experience.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

The sighting of the mystery unidentified creature occurred during the night following the discovery and photographing of the footprints track. For half an hour Whillans watched through binoculars a very dark, seemingly hirsute shape moving with bipedal gait over the moonlit snow slope. The creature was zig-zagging about, bending down occasionally, and sometimes dropping on all fours as if searching for something, possibly edible roots buried in the ground. The shape finally vanished in a thick belt of trees high up on the mountain.

The altitude was roughly 14,000 feet, indicating terrain below the snow line in spite of the thick snow lying around. The snow line is the altitude where snow never melts. Below this altitude heavy snowfalls occur, but they do disperse when meteorological conditions allow.

Whillans said that he had not tried to take a photograph of the creature as it was night. Though the moon was up and the landscape very clear, he would still probably have had to use flashlight, and this would have frightened whatever it was away, and so shortened the time for observation. Though he had been able to study its movements, approximate size and shape, even half an hour's concentrated effort could not give him a real clue as to the visitant's nature.

It was said that the part of the mountain where the expedition's advance base was being pitched had never had human beings on it before. It was a hitherto unexplored region of Annapurna. At the time of the sighting. Whillans, Haston and, I think, two Sherpas, were the only living souls who had come to this particular terrain.

The Sherpas were in no doubt that the tracks had been made by a Yeti, and that the creature Whillans watched from the hut as it went meandering about the snow was the Yeti that had made the tracks some hours earlier.

Later, Whillans learned that this part of the Annapurna region was sometimes known as " The Valley of the Great Ape."

Don Whillans is a climber, a keen mountaineer, and is not an anthropological or zoological researcher. He had never had interest in the unexplained riddle of the Himalayas and of a few other remote parts of the world where geographical similarities obtain. So he was not looking out for what he saw, and not expecting it. This lack of interest and anticipation gives some credibility to the incident, as does at first his reluctance to describe it. He never believed or disbelieved in the remnant existence of the Yeti as a species, but he saw what he saw, and proof of something unusual lies in the photograph of the track.

According to Mrs Audrey Whillans, his wife, with whom I had a friendly telephone conversation in 1972 during his absence

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

in the Himalayas, there was no drink around that might have caused a little eyesight blurring; the altitude was not high enough to cause hallucinations, and — consignments of beer for the expedition had not arrived!

Returning to my 1970 second talk with Whillans about the Annapurna encounter, he told me how a certain feature in the photograph he took had at first puzzled him as much as the sight of that mystery shape foraging across the snow. In the lower section of the track picture one of the footprints is shown as much deeper than the rest, and has a different shape. Some time after his return from Annapurna, Whillans was reading a zoological book. It contained a description of how some of the anthropoids when going down on all fours, have a habit of leaning heavily on doubled-under front knuckles.

In fact, an illustration in the book showed this very characteristic. It looks exactly like the bottom imprint in his own photograph of the tracks on Annapurna's snow field.

OUR CONTRIBUTORS

FRANK MIELE

6005 S.E. 11th Street, Midwest City, Oklahoma 73110, U.S.A.

DESMOND TARRANT

13 Cassel Avenue, Branksome Park, Bournemouth, England.

MARIE E. P. KONIG

6604 Güdingen, Tilgesbrunnen 5, Saar.

NATHANIEL WEYL

Rocamar, 4201 S. Ocean Boulevard, Delray Beach, Florida 33444, U.S.A.

DONALD A. SWAN

88-42 209 Street, Queen's Village, New York 11427, U.S.A.

ODETTE TCHERNINE

28 Princes Square, Bayswater, London, W.2, England.

DALE C. ADAMS

713 E. 7th Street, Davis, California 95616, U.S.A.

G. M. MES

P.O. Box 234, Krugersdorp, Transvaal.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Farewell to Behaviourism

By DALE C. ADAMS

Thanks to Copernicus the Earth now is acknowledged to revolve round the Sun, but some credit for the world henceforth admitting that human life revolves around heredity may be given to Arthur Jensen, although many others have shown and proved this long before, and for them and the readers of this publication his thesis provided nothing new. Nevertheless, since only apostasy within the Establishment itself can register any disturbance within the orthodoxy of the English-speaking world, Arthur Jensen's credentials, as a sophisticated behaviorist, brought him shocked attention when he went over to the hereditarian camp late in 1967. In the far-out progressive never-never land of California, Jensen chose the most impregnable environmentalist bastion, the California Teachers' Association, as the body before which he betrayed the previously unquestioned creed. The purpose of this paper is to look at Jensen's earlier works which reveal the fearlessly searching mind which would come to see through the blinkers imposed by all his upbringing and the consensus of views of his colleagues.

Jensen received his Ph.D. in 1956 from Columbia University and has been teaching since 1958 at the University of California at Berkeley where he has become the head of the Institute of Human Learning. It should be obvious from his background what enormous intellectual obstacles Jensen painstakingly had to explode as myths to reach the conclusions in his present paper. The shambles in which he has left behaviorism leaves only two courses open: 1. To devise a most sophisticated elaboration of stimulus-response learning; 2. To overturn the prevailing psychology. In the same fashion as Copernicus, Newton and Einstein, Jensen took a complex system artificially nurtured to sustain a shaky theory and eradicated it by clarifying a concept which explains nature much more simply. Unlike these others, Jensen himself was the creator of the sophisticated concepts which were holding behaviorism together. This paper is a review of the intellectual journey of Jensen through the wasteland of behaviorism in his pre-critical stage before he jolted the United States recently with hereditarian criticism of the psychology which underlies the present social and political programs. (The term "pre-critical" is used in similar fashion as Kant's works before his *Critique of Pure Reason* are called pre-critical.)

Jensen's genius did not lead him on a unilinear course of the destruction of behaviorism. Jensen was so zealous in his pursuit of

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

learning ability underlying cultural differences that his experiments and perceptive theorizing seemed about to fulfil the environmentalists' dream of a proof that culturally deprived children had just as much ability as their more advantaged peers. Believing that I.Q. tests were really achievement tests, Jensen and his associates sought and found a test of learning ability which eliminated most of the correlation between score and social class. Particularly delightful was the discovery that low I.Q. lower-class students had much greater learning ability than low I.Q. middle-class students. The implication seemed clear that lower-class children had bad environmental influences which did not allow their I.Q. to develop, in spite of their basic learning ability.[1]

Jensen's earliest paper in his string of articles since 1961 already had this theory of learning ability (which is still held by Jensen in the same form in all his latest major papers). Jensen at this early date frankly faced the racial issue which has become paramount today. Jensen tested Mexican-American children. He acknowledged that high I.Q.s among them were so rare that subjects for testing were difficult to find. On the other hand, Jensen proved that serial and recall learning among low I.Q. Mexican-Americans was very high, much above low I.Q. Anglo-Americans. Nevertheless, school performance was better predicted by I.Q. than by learning abilities shown in recall and serial tests.[2]

Jensen attempted to find something special about serial learning as a fundamental test of ability. He compared serial learning with paired-associate (P.A.) learning.* Ultimately, the conclusion of his research was to be that P.A. learning is the strong point of the lower socio-economic status (S.E.S.) groups in general. However, the early course of Jensen's research tended to show that P.A. learning depended upon cultural preconditioning, whereas serial learning measured basic learning ability. Jensen's ultimate goal was to find a culture-fair test, but his published studies were attempts to find the specific stimulus-response (S.-R.) learning which actually takes place.

Jensen began with a naïve faith in behaviorism (S.-R. learning), but soon demolished all leading theories explaining how S.-R. serial learning takes place. Early in 1962 Jensen took the basic preconception of behaviorism and developed an empirical theory

[1] Arthur R. Jensen, "Learning Ability in Retarded, Average and Gifted Children", *Merrill-Palmer Quarterly*, Vol. IX, April 1963, pp. 123-140.

[2] Arthur R. Jensen, "Learning Ability in Mexican-American and Anglo-American Children", *California Journal of Educational Research*, Vol. XII, Summer 1961, pp. 147-159.

* P.A. learning is the stimulus response in its simplest form. Each stimulus is given a specific response item associated with it.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

of S.-R. learning based on his research. Jensen found that knowledge of the position of a particular term in the series comes all at once or not at all. In a long series, the preceding term is learned before the next can hook on in a later all-or-nothing learning trial.[3] Jensen then sought to pinpoint the way in which new terms are learned. He refuted the commonly accepted theory of Woodworth and Poffenberger (1920) that serial learning was by S.-R. bonds connected to the ordinal position in the series. Jensen's experiment clearly marked the ordinal position of each item in the series. His surprising result was a demonstration that the series position curve of series learning was more bowed than for the control group. That is, learning of middle and past-middle terms in a series was as difficult as ever.[4] Later in 1962 Jensen exploded other behaviorist theories of serial learning. He found the same serial learning curve even when spatial instead of temporal series were used and even when the method of learning was trial and error discovery in which middle terms would be equally likely to be learned first.[5]

Only a year after affirming naïve behaviorism, Jensen denied that S.-R. connections apply to serial learning. The discovery that serial and P.A. learning abilities did not match had been made by Young in 1959 and 1962. P.A. would transfer somewhat to serial learning, but the reverse transfer hardly occurred at all, as Jensen's own research confirmed. Jensen found little psychologically in common between the two. He suggested that serial learning is integrated centrally, just as is the rapid playing of a piano.[6]

The psychological difference between serial and P.A. learning Jensen found in the suitability of verbal mediation for the latter. Jensen's attention turned toward the mentally retarded as subjects for verbal mediation because they do not use it unless instructed to do so. The retarded normally perform better on serial learning. With specific instruction on tying together the test materials, mastery of P.A. learning came much faster and errors were cut

[3] Arthur R. Jensen, "An Empirical Theory of the Serial Position Effect", *Journal of Psychology,* Vol. LIII, January 1962, pp. 127-142.

[4] Arthur R. Jensen and S. S. Blank, "Associations with Ordinal Position in Serial Rote Learning", *Canadian Journal of Psychology,* Vol. XVI, March 1962, pp. 60-63.

[5] Arthur R. Jensen, "Temporal and Spatial Serial-Position Effects", *American Journal of Psychology,* Vol. LXXV, September 1962, pp. 390-400. He thus refuted Lepley (1934) and Hull (1940, 1952).

[6] Arthur R. Jensen, "Transfer Between Paired-Associate and Serial Learning", *Journal of Verbal Learning and Verbal Behavior,* Vol. I, January 1963, pp. 269-280.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

by four-fifths. Serial learning was not affected.[7] Jensen found that oral repetition of connecting sentences brought learning five times as rapidly as a control group without oral repetition.[8]

Jensen found further differences between P.A. and serial learning in differences in rates and types of development. In 1965 Jensen showed that P.A. learning increases from ages five to 18,[9] but serial learning reaches a plateau at the age of eight or nine. Jensen formed the hypothesis that serial learning measured I.Q., whereas paired-associate learning corresponds to mental age.[10] As with mentally retarded adults, he found that instructing normal children in the use of verbal mediation improved P.A. learning, but primarily in the ages seven to 13. At these ages verbal mediation has meaning, but many students have not yet learned to use it. Jensen therefore felt in 1965 that P.A. learning depends upon previous learning. In contrast, serial learning was seen as basic learning ability.[11]

Although Jensen's research from 1962 through 1965 was discarding behaviorism in serial learning, Jensen sublimated the old doctrine in his 1966 restatement of the faith. Jensen entered into a new phase of involved philosophy. He developed an ingenious Scholastic framework to explain why it was that the learning ability demonstrated in the tests could not be made to exhibit itself in higher I.Q. scores or better scholastic performance. Jensen's 1966 articles display philosophic acuity and ingenuity. To start, he drew a model showing great environmental forces upon I.Q.[12] Jensen cited the negative correlation of up to –.75 between I.Q. and chronological age among deprived children. He explained that I.Q. drops if a cumulative deficit in skills develops from an original failure to learn material which is necessary for

[7] Arthur R. Jensen and William Rohwer, "Verbal Mediation in Paired-Associate and Serial Learning", *Journal of Verbal Learning and Verbal Behavior*, Vol. I, February 1963, pp. 346-352.

[8] Arthur R. Jensen and William Rohwer, "Effect of Verbal Mediation on the Learning and Retention of Paired Associates by Retarded Adults", *American Journal of Mental Deficiency*, Vol. LXVIII, July 1963, pp. 80-84.

[9] Arthur R. Jensen, "Rote Learning in Retarded Adults and Normal Children", *American Journal of Mental Deficiency*, Vol. LXIX, May 1965, pp. 828-834.

[10] *Ibid.*; Arthur R. Jensen and William Rohwer, "Syntactical Mediation of Serial and Paired-Associate Learning as a Function of Age", *Child Development*, Vol. XXXVI, September 1965, pp. 601-608.

[11] *Ibid.*

[12] Arthur R. Jensen, "Social Class and Perceptual Learning", *Mental Hygiene*, Vol. L, April 1966, pp. 226-239.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

later transfer.[13] So Jensen had to dig down into the fundamental processes in which learning originates. Most research on rats proves that environment affects brain chemistry of rats and their maze-learning ability.[14] Turning to blind-from-birth people given sight as adults, Jensen showed that learning begins on the perceptual level. The blind actually have to *learn* to see.[15] The startling fact was that lower-class Negro children from the South were particularly lacking in the auditory perceptual abilities to register the words their first-grade teachers were saying. Compensatory pre-school education such as the "Head Start" concept seemed to be the answer.[16]

Another Jensen work of the same date stated a highly sophisticated behaviorism which seemed to be on the verge of a definitive philosophy of education. He glowingly wrote of a potential for improvement of ". . . 20 I.Q. points through which the environment can exert its influence, [particularly] the I.Q. range from about 70 to 90".[17] He attributed all distinctly human intelligence to verbal mediation. Most crucial was developing an internalized set of responses, rather than just a direct response to stimuli. Internalized, mediated, responses could be generalized to other learning.[18] Jensen defined an increasingly complex series of verbal mediation on behaviorist terms, up to and including items under general categories. Jensen's theoretical structure was sound in its own terms, but recalcitrant empirical data threw him into rationalizations and circumlocutions: he tried to explain away the low scores of "cultural retardates" on *non-verbal* tests to lack of environmental richness for *verbal* mediation! The research data was that (1) "cultural retardates", the low I.Q., lower-class students, do much better on perceptual, non-mediation tests than low I.Q., middle-class students; (2) on verbal tests they are more comparable; and (3) the culturally retarded were the most handicapped on "non-verbal" [Jensen's quotes] tests. With traditional environmentalist speciousness, Jensen argued that the test situation

[13] Arthur R. Jensen, "Social Class and Perceptual Learning", *op. cit.*, p. 231.

[14] Arthur R. Jensen, "Social Class and Perceptual Learning", *op. cit.*, pp. 232-233.

[15] Arthur R. Jensen, "Social Class and Perceptual Learning", *op. cit.*, pp. 233-234.

[16] Arthur R. Jensen, "Social Class and Perceptual Learning", *op. cit.*, p. 238.

[17] Arthur R. Jensen, "Verbal Mediation and Educational Potential", *Psychology in the Schools*, Vol. III, April 1966, pp. 99-109.

[18] Arthur R. Jensen, "Verbal Mediation and Educational Potential", *op. cit.*, p. 101.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

did not arouse verbal mediation in these problems for lower-class children, particularly Negroes.[19]

However, Jensen's data and knowledge by this time were ready to free him from associationist theories. In another article of approximately the same date, Jensen's thesis was the same, but he did not refrain from some heretical asides. In making the same point that the I.Q.s of middle-class children did not drop with age, he saw the drop of low S.E.S. children from 90-100 I.Q. down to 70 to 85 as due to bad home environment. Jensen exculpated the schools; the most run-down institution he had ever seen was the very school which had trained English prime ministers, statesmen and leading intellectuals. Another unorthodox acknowledgment was that race is a large factor in determining school performance.[20] In both his other early 1966 papers Jensen made the startling admission that heredity accounts for 80 per cent of variation in I.Q., but Jensen could maintain his behaviorist model because he had the misconception that the 20 per cent rôle for environment would leave 20 I.Q. points for bad environment to stunt individual development.[21] In the more casual article, however, Jensen allowed himself to go on to admit that research into hereditability shows I.Q. measures innate ability.[22]

In spite of Jensen's discoveries and his doubts, his break with his past was very difficult. The thrust of his search for a culture-fair test, above all, could so easily have carried a lesser man into a lifetime sinecure defending the received doctrines by means of the learning ability tests which finally achieved the goal of a test which low S.E.S. could do as well as middle-class students. (In a modification here of his earlier findings Jensen now established learning ability by means of paired-associate testing rather than by serial learning.) Similarly, Jensen's finely spun web of stimulus-response verbalization compares to the Scholastic complexity of the Ptolemaic cosmology or to the involved whirlpools and eddies of the Cartesian physics which Newton's laws took half a century to replace. Throughout the history of science the elegant circumlocutions which have preceded the major breakthroughs have always been more imposing in intellectual difficulty than the simpler laws which have replaced them. But however impressive as a scholarly accomplishment, the genius which simplifies with a

[19] Arthur R. Jensen, "Verbal Mediation and Educational Potential", *op. cit.*, pp. 102-104.

[20] Arthur R. Jensen, "Cumulative Deficit in Compensatory Education", *Journal of School Psychology*, Vol. IV, Spring 1966, pp. 37-47.

[21] Arthur R. Jensen, "Social Class and Perceptual Learning", *op. cit.*; "Verbal Mediation and Educational Potential", *op. cit.*

[22] Arthur R. Jensen, "Cumulative Deficit in Compensatory Education", *op. cit.*

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

new concept duly receives the accolade of historians. Jensen gets credit for filling both rôles.

Jensen soon saw through the claim of 20 I.Q. points being attributed to environment and became converted to the hereditarian view. It was true that Stoch and Smythe in 1963 had found that severe malnutrition among South African children caused a decrement of 20 I.Q. points. However, such severe deprivation is not relevant for much of the United States.[23] Most important, nutritional factors alone are significant, not cultural advantages. The differences which Jensen used to attribute to cumulative deficit of cultural deprivation, he now recognizes as genetically determined.[24]

Jensen has gained great notice since he began publishing his hereditarian views in late 1967. He has become famous with his major article in the winter 1969 issue of *Harvard Educational Review*. The three great U.S. news magazines soon presented articles on Jensen. With the failure of the "Head Start" program of pre-school education and with the new Nixon Administration not committed to these Utopian policies, the United States may finally be ready to examine facts honestly.

[23] Arthur R. Jensen, "How Much Can We Boost I.Q. and Scholastic Achievement?" *Harvard Educational Review*, Vol. XXXIX, Winter 1969, pp. 1-120.

[24] Arthur R. Jensen, "How Much Can We Boost I.Q. and Scholastic Achievement?" *op. cit.*, pp. 62-63.

JOURNALS RECEIVED

ETHNOLOGY

A quarterly journal of cultural and social anthropology. University of Pittsburgh, Pennsylvania 15213. Price $5 a year. Vol. XI, No. 3, 1972.

GENUS

Journal of the Italian Committee for the Study of Population Problems, and of the Italian Society of Eugenics, Rome. Vol. XXCII, Nos. 1-4, 1971.

REVISTA DE ESTUDIOS POLITICOS

Published quarterly by the Instituto de Estudios Politicos, Madrid. Price 100 ptas. Nos. 183-184, 1972.

ANTROPOLOGICA

Published by the Instituto Caribe de Antropologica y Sociologia of the Fundacion La Salle de Ciencias Naturels, Caracas, Venezuela. No. 29, 1971.

RIVISTA DI ETNOGRAFIA

A yearly journal published by the National Research Council, Naples, Italy. Price L5.000. Vol. XXV, 1971.

POPULATION

Revue published by L'Institut National d'Etudes Démographiques, Paris. Price F12.00. Vol. 27, Nos. 4-5, 1972.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

The Object Lesson of America

A Question of Ethno-Morality

By G. M. MES

The current racial troubles in the United States are truly an object lesson which shows how, in the end, the sins of the fathers have to be paid for — and not merely up to the third and fourth generation. What is sinful, and why, does not, however, always seem to be quite clear to most of us.

When one captures a human being and sells him into slavery, one does him a wrong. There can be little doubt about that. One tears him out of his familiar environment. One interferes with his private life, even if this happens in a world-structure in which " slavery " is an acknowledged and officially permitted pattern detail.

When, in such a world-structure, one *keeps* a slave, by the morality of that culture one does him no wrong. The man *is* a slave in that society. Fate has placed him in that position, not the owner.

The owner can only do him a wrong by being a bad master, just as the slave would do the owner a wrong by being a bad slave. Being a bad master means failing in one's responsibility for the slave's well-being in return for the work that he does.

The real, but hidden, question is naturally whether " slavery ", as such, is wrong — but that is determined by the structure of the society into which one has been born and the system of morals in vogue in that society and at that moment. It was *not* wrong in the times of, and one supposes in the eyes of, Christ.

It is, however, not self-evident that security, food and lodging and a reasonable amount of free time " from the cradle to the grave " under a master is Evil, while the same thing under an impersonal " State " is the Ultimate Good.

However, when there is legalised slavery, when the social configuration is such that it has slavery as an integral and essential part of its structure, it is *as* wrong suddenly to end that system by force (for allegedly moral or any other reasons) as it was to " take " the slave originally.

Here too, one suddenly tears the slave out of his familiar environment (or, rather, one destroys that environment).

In the old environment he was able to survive, he (usually) had grown up in it and knew its ways. Its basic problems were

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

almost automatically adjusted for and, within its context, the man could live a reasonably contented life, especially where he had had no other kind of environment with which to compare it.

In removing the "debasing" slavery the liberator certainly removes some reasons for unhappiness and suffering out of the life of the slave, but in doing so he burdens him with all the responsibilities that, up to that moment, the "master" has carried for him. In a way it is like the little old lady who let her canaries fly away "free", but left them with the task of looking after their own safety in an inimical world and the necessity for finding their food in competition with the wild birds of the fields and the forests — birds that had grown up in that competitive environment.

What we see happening in Africa today is the equivalent of what happened in America after the Civil War and the results are, again, not very promising. It was all very moral and good of the Northerners to hate slavery and to "interfere with the internal affairs" of Southern States but — seen with an unemotional eye — it was a rather cheap morality and did much more harm than it did good.

In the eyes of these Northerners, one killed a large number of one's degenerate white brethren in the South because of their disgusting attitude to the sacred "rights" of man, one freed the slaves out of their humiliating servitude and then one went home well pleased with a task well done.

But what had one *really* achieved?

There had come an end to slavery, but what had taken its place?

Of that one washed one's hands!

The slave master, taken by and large, had been a good master. He had *had* to be, for a slave represented a considerable amount of capital outlay. Death or illness of the slave meant a painful loss to his owner, hence *he* saw to it that the slave was sufficiently well fed and housed and, usually, he had the sense to realise that a contented, happy slave produces more and better work than one who is unhappy or carries a grudge.

For his own sake — if not due to his moral obligations as a "master" — the owner created for his slaves a small world which was well guarded against the dangers of the "outside" and, in this world, his "black folks" could live their lives in reasonable contentment.

He was responsible for the economic welfare of the whole group (including himself). All the slave had to do was the "work" on which, for a large part, the income of the small sub-community depended. It was, however, a legitimate "pattern of living".

Naturally there was injustice here, just as there had been in

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

the bad old days of feudalism. The master took much more than his fair (?) share of the income of the group for himself and lived in what seemed to the envious eyes of the Northerners to be the lap of luxury. Where the Northerner had to do his own chores, the southerner lolled about and was served hand and foot — or so it seemed.

One is therefore hardly likely to be far wrong when one suspects that it was envy, rather than high principles, which was the main incentive of the " liberators ".

The proof of the pudding is always in the eating thereof and the liberators themselves showed by their subsequent actions *that they were not really concerned about the well-being of the slaves but about the impertinence of the white men who " presumed " to be slave owners.*

That one could break up and destroy on highly ethical and moral grounds — and feel good instead of mean about it! (Here too there is a parallel with what is happening in Africa today, where " colonial abominations " are being destroyed.)

If the liberators had been at all concerned about the well-being and happiness of the slaves they should at least have asked themselves what would happen to them now that they were free. Had they done that they would, or should, have realised that they themselves should now have taken over the responsibility for the well-being and happiness of the slaves, for whose sake they had found the justification for the killing of their own kind. *They should have taken over that responsibility until such time as the ex-slaves or their descendants could do what they had never been taught to do — namely, to look after themselves.*

The correct method of " freeing a slave " has been well described by Joy Adamson in her book *Born Free*. This is the story of a female lion cub that grew up in the camp of a game warden in Northern Kenya until it was almost a member of the family. More than half of the book is concerned with the enormous amount of trouble they went to to make her fit for, and finally to return her to, the " freedom " which was her " heritage " — rather than to send her to a zoo or have her shot.

The northerners of America were no Joy Adamsons. They simply contented themselves with eliminating the " masters " and pushed the slaves off into the jungle of our western economic system — with the inevitable results that could have been expected. The " niggers " still worked the plantations, etc., but now they were in competition with each other. They also had to budget personally for their necessities within their personal income. When they were ill, or unable to work for any reason, they were on their own. *They no longer had any personal value whatsoever* — except to their valueless selves.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Instead of being a part of an economic unit which worked for the mutual good of its members (including that of the master), there was now the added strain of the natural antagonism between the " employer " who wanted the most possible work for his money and the employee who wanted the most money for his work. For this battle the ex-slave was hardly fitted to come out on top. The " Negro population " had become an amorphous mass of humanity, quite defenceless against exploitation.

The original masters lost relatively little on the deal. In fact they gained once they had adjusted themselves to the new conditions. The ex-slaves won very little, if anything at all, except their " freedom " and " freedom " one cannot eat, neither does it keep out the rain in summer or give shelter against the winter winds.

All that the new freedom meant to them was the " right to compete ", which was an entirely alien concept and for which the ex-slaves had neither the aptitude, nor the tradition, nor the necessary training.

For them it was, *a priori*, a lost battle and most of them did not even try. It was good enough if they could manage to suffer survival in the new structure the men from the north had enforced upon their old, familiar world; now gone for ever.

Thousands of others filtered into the towns and cities and moved up north, but even there the essential hypocrisy of the ethically " inspired " White man with his high-sounding condemnation of the way in which *others* lived, became apparent. Nobody seemed to feel any responsibility for the well-being of their victims or the need to undertake the task of finishing what they had begun when they set out to spoil the " fun " of the southern " supermen ".

The Negro is almost superhumanly patient and able to bear a burden of suffering and humiliation far beyond anything that *we* can imagine; so it took a long time. Now, only now and in our day, the chickens are coming home to roost.

The White man has not been able or willing to follow up his promises, he has not paid the bill he signed, and he stands condemned as a bankrupt. True, he has freed his slaves, but he has not taught them *how* to be free or *how* to compete in the Western world (because they would then be competing with the White man himself!) — and the Negro is now beginning, only beginning, to compete in his *own* way.

Our high-sounding " giving of freedom " stands revealed as a mere removing of the barriers against ruthless exploitation, and (typically *not* only in the South) the Negro is resisting. Hence the Black Muslims, the Black Panthers, the riots at Los Angeles and the numberless others that have eventuated and that will go on

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

until the bill, signed at the end of the Civil War, has been paid — and paid in full.

Strangely enough, in this whole series of events, only two great evils were perpetrated — firstly when the slaves were taken from their homes by their own people and sold "outside" — secondly when these slaves were "liberated" (by those not directly concerned) *without the liberators taking the full responsibility for what they were doing.*

If the north had really wanted to end slavery in a "moral" way it should have started off by prohibiting all further importation of slaves. After that it should have bought up batches of them and then educated and trained them until they were able to look after themselves and could really be free men in a free country, ready to be totally assimilated into the social and economic structure of the state.

It is now far too late to remedy all this but the sins of the fathers still have to be paid for in full. Unhappily we learn from history only that we do not learn from it. The same sins have now been perpetrated, this time on a continental scale, in Africa and only history will tell when the price for *that* will have been paid up.

The cost will not be borne by the former masters (who have gone home because the game was no longer worth the candle) but by Congolese, Watussis, Zanzibar Arabs, Southern Sudanese and Biafrans who have been blindly re-enacting the bloodbaths which took place when the British Raj went back to Brighton and suburbia.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Book Reviews

THE PRE-COLUMBIAN MIND: A STUDY INTO THE ABERRANT NATURE OF SEXUAL DRIVES, DRUGS AFFECTING BEHAVIOUR AND THE ATTITUDE TOWARDS LIFE AND DEATH, WITH A SURVEY OF PSYCHOTHERAPY IN PRE-COLUMBIAN AMERICA

By F. Guerra. Seminar Press, London and New York, 1971. Pp. 335, 4 plates, 40 figures. Price £4.50 ($13.50).

The author shows in his introduction that the Europeans at first did not consider the Amerindians rational human beings, and that, even today, "the life cycle of Spanish America gravitates around behavioural patterns indelibly established in pre-Columbian times, some of which are still alien to traditional European standards," (p. 1.) After, however, 400 years of Spanish European influence one would expect this to be otherwise, if these are induced patterns. The fact that they survive is a strong argument for their being genetically inherent.

The author gives a good summary of the various pre-Columbian nationalities, such as the Toltec, Maya, and so on.

To the Toltecs was attributed the calendar of 365-plus days. They came from the north and were guided by a priest-astrologer.

The Aztecs, who also came from the north, learnt from the Toltecs their agricultural systems and technical knowledge.

The Mochica developed in the north coast of Peru, from B.C. 300 to 1000 A.D.

The Inca people flourished from between 1438 and 1471. They seem to have held their lands in common within each clan.

The interesting thing is that in the matter of moral issues such as incest, inebriation, theft, and the like, the laws of the pre-Columbian Americans were very similar to those of the European invaders. The only difference appears to be that the Europeans gave more credit to repentance than did the pre-Columbian American codes (p. 28).

Among the Aztecs, sodomy, although widely practised, was condemned (p. 49) as was the prostitute (p. 26). Among the Maya rape was punished with death (p. 31). Confession to their priests formed part of the Amerindian practice of religion (p. 51), and they believed that it freed them of sin. Phallicism was part of their religion in the temples, as well as in public places.

The Caribs were declared by the Emperor Charles V to be enslaved because of their idolatry. They were addicted to the use of inebriating drugs, sodomy, and anthropophagy. Bishop Ortiz (according to his account in 1525) refused to return to Santa Maria because several of his friars had been eaten by the Caribs. One contemporary writer describes them as like animals (p. 53).

The early Spanish writers considered that syphilis was caused by the prevalance of sodomy among the upper classes, who kept young men dressed as women whom they used for this purpose, as they also did their wives.

Among these peoples of the Carribean and the north coast of South America hallucinating drugs were widely used. The evidence is also that far from alcohol being introduced by the Europeans inebriation was an Indian vice already established when the Spaniards arrived (p. 57).

The Peruvians had houses of virgins, analogous to nunneries, for the worship of the Sun God, some of whom were used for sacrifices. There

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

were also other houses of virgins kept for visiting potentates and the conquistadores as they passed through the country were offered such women. The places of those taken out of these houses were replaced by new inmates.

Cannibalism was formerly established as a pre-Columbian practice from the frequent quotations given by the author from writers who knew the Amerindians before they had been much influenced by European contacts.

Kings, nobles and warriors were eaten when conquered (p. 32). These were often sacrificed, the heart being cut out alive (in some cases being the portion of the priest) and the body that of the captor who made a feast of it (p. 65). They even, on occasions, half-buried their victims to make the cruelty the greater. At other times they used them for target practice, and while half dead cut them down from the stakes to which they were tied on high, letting them fall from a great height, and then ended by having them sacrificed by having their hearts torn out, after which they were eaten.

It is fashionable to blame the conquistadores of Spain for their cruelty to the Carribeans and other peoples of New Spain. But when one knows the other cruelty and degradation of the Amerindians of that period, one to the other, apart from that to European invaders and missionaries, one need not be surprised at what occurred. While it is a great pity that much of the native learning and culture was destroyed in the conquest of New Spain, yet the world is better off that such a civilisation was in fact extinguished, against which the mediaeval European rack and stake were, in comparison, mild punishments.

A hallmark of European civilisation, even if not always practised, was and is chivalry. There is no trace of this among the Pre-Columbian Amerindians.

The evil account of the Spanish conquest of the New World is attributable to the writings of Bartoloméde las Casas (1542) which were immediately translated into other languages and started the "black legend" of Spain. He can be shown to have been unreliable in his accounts, inclined to extreme exaggeration in Indian matters, and that he was considered a trouble-maker among his religious colleagues, as well as by the conquistadores . . . as a historian (he) was not honest, and his desire to help the natives distorted many facts which until now have been accepted as correct (pp. 75-76). This is a type of priest with which we are still all too familiar today where white and black relations are concerned. The harm done by such people is evident when we realise that it has taken over 300 years to call into doubt, and then, later, to disprove, the gross exaggerations and dishonesties of de las Casas, so that we can have a more objective conception of the conquest of New Spain and its Amerindian inhabitants.

I.Q.s OF IDENTICAL TWINS REARED APART

By Arthur R. Jensen. *Behavior Genetics.* Vol. I, No. 2, 1970. Pp. 133-148.

Comparison of monozygotic twins reared apart has contributed to our knowledge of the effects of environmental differences and to our estimates of the heritability of physical and psychical traits. In this paper Dr Jensen reviews and reanalyzes the intelligence test data from the four largest studies of monozygotic twins reared apart — Newman, *et al.*, 1937; Shields, 1962; Juel-Nielsen, 1965; and Burt, 1955. Finding no significant differences among the twin samples in the four studies, the author pooled the data in his statistical analysis.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

The I.Q.s of the 122 twin pairs were found to be normally distributed, with a mean of 96.82 and a standard deviation of 14.16. The mean absolute difference between the identical twins reared apart was 6.50 I.Q. points for the entire sample, with the largest difference being 24 I.Q. points. Dr Jensen calculated the overall intraclass correlation between twins to be .824, which he interpreted "as an upperbound estimate of the heritability (h^2) of I.Q. in the English, Danish and North American Caucasian populations sampled in these studies." Jensen further compared the difference between monozygotic twins reared together with the difference between monozygotic twins reared apart and concluded that "most of the small twin difference in I.Q. may be attributable to prenatal intrauterine factors rather than to later effects of the individual's social-psychological environment."

DONALD A. SWAN

SUPPLEMENT TO THE SOCIOLOGY OF INVENTION

By S. Colum Gilfillan. San Francisco Press, Inc., San Francisco, 1971. Pp. 229. Price $9.00.

When M.I.T. (Massachusetts Institute of Technology) Press decided to reissue S. Colum Gilfillan's *The Sociology of Invention* (1935) in 1970 they declined to publish the additional material which the author has now incorporated in the short book under review. The reason for this refusal, an extraordinary one when one considers that Gilfillan's work is unique, was doubtless that it contains facts which the egalitarian American university establishment finds unpalatable.

The present volume incorporates Dr Gilfillan's article "Some Racial Comparisons of Inventiveness," which appeared in THE MANKIND QUARTERLY, Vol. IX, No. 3, January-March 1969. In these pages he calls attention to the pre-eminence of north-west European nations, mostly predominantly Nordic, in inventions and to the outstanding rôle of such recipient countries of the victims of religious persecution as Holland and Switzerland. Gilfillan attributes the superior performance of the Scandinavian countries to their comparatively brief exposure to the baneful influence of clerical celibacy. In discussing Negro lack of inventiveness, he observes that the handful of American Negroes who rank as inventors were largely white. He correlates Negro shortfall in this field with defective comprehension of third dimensionality and spatial relationships (Travis Osborne). That primitive and isolated peoples are not necessarily non-inventive is shown by the amazing technological creativity of the Eskimos. Dr Gilfillan takes up a suggestion I made several years ago in THE MANKIND QUARTERLY that this may be due in part to massive cosmic radiation, causing an excess of genetic mutation.

The inventor is, of course, intelligent, but not necessarily of very high I.Q., Gilfillan concludes. He tends to be a "loner," a non-conformist, the sort of student who wrestles with a few challenging ideas rather than the type who absorbs and commits to memory all that comes his way. Few women are inventors. Inventors are more likely to be bald than the average for their age and race, Dr Gilfillan asserts, a possible correlate with more-than-average masculinity. The son-daughter ratio of a sample of top American inventors is 46/42, which Gilfillan believes is also indicative of masculinity.

NATHANIEL WEYL

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Reprints of interest to the Genealogist

S. R. Publishers here offer some titles from their range of reprints which will appeal to those with an interest in the field of genealogy. These are beautifully prepared facsimile reprints of rare works, for long out of print and virtually unobtainable.

History, Directory and Gazetteer of the County of York

by Edward Baines

Published: Leeds Mercury, 1822-1823. Reprinted with new introductory notes by Owen Ashmore. A directory, listing population, professions and notable inhabitants of the various towns, cities and villages in Yorkshire.

pp. 654 + cxliv and 656. 2 volumes — **£3.15 per volume**

John Speed's Atlas of Wales

(Part II of ' The Theatre of Great Britaine ')

Published: London, 1676. This is an exact facsimile of the 1676 edition. Probably the greatest British cartographer ever, Speed's work is still available in many formats but this will be the first time that his complete Atlas of Wales has been available again for over 250 years.

pp. 64 — **£5.25**

Birmingham Inventors and Inventions

by R. B. Prosser

Published: Birmingham, 1881, Journal Printing Works. Originally published in an edition of only 50 copies, this is probably the rarest book on Birmingham. The new work includes an introduction by Professor Asa Briggs, Vice-Chancellor of Sussex University.

pp. 264. — **£2.50**

Place Names of Scotland

by Rev. J. B. Johnston

A reprint from the 1934 edition. Probably the most important work of this well-known philologist.

pp. 352. — **£3.50**

Full lists and details available from:

S. R. Publishers Limited

East Ardsley, Wakefield, Yorkshire

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

DAS OFFENBARTE LEBEN

By F. Ritter

I. Bd. Lebensschöpfung und Vernunftfrevel, 344 S. DM 20

Life on this planet now and through the millions of years of evolution and coming extinction of mankind.

II. Bd. Schmarotzerzüchtung und Erbopferung, 247 S. DM 15

Parasitism and disease, and the development of parasites and diseases.

III. Bd. Nietzsche, der gerechtfertigte Seher, 585 S. DM 32

Nietzsche's vision, his insight into mankind's true predicament, for the first time revealed and explained and demonstrated in detail. "The True Book of Philosophy."

By encompassing all the vital facts of our world and mankind, it constitutes the true scientific biological book in the world and makes our situation thoroughly and perfectly clear.

Without its insights, no human future is possible.

Der Biologe f. Ritter bringt die für uns lebenswichtigen, aber der Offentlichkeit noch weitgehend unbekannten, erbbiologischen Erkenntnisse und die daraus zu ziehenden Schlußfolgerungen in verständlicher Form. Verantwortungsbewußte werden vor Entscheidungen gestellt, wenn sie nicht ihre Nachkommen in den körperlichen, geistigen und seelischen Untergang geraten lassen wollen, der von gewissenlosen Machtgruppen und Ideologien der Masse als Fortschritt gepriesen wird.

Halbleinen 24 x 17 cm. Bände auch einzeln lieferbar.

Zu beziehen von:

F. Ritter Verlag,
D — 3119 Tätendorf,
Eichenhof,
Deutschland.

Also obtainable from:

European Printing and Publishing Company Limited,
92-94 Gray's Inn Road,
London, W.C.1.

Das Buch, ohne dessen Erkenntnisse keine Menschenzukunft möglich ist!

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Ethnological Elements of Africa

By R. GAYRE OF GAYRE

This collection of essays on African ethnology originally appeared as a series of articles published during the last few years in THE MANKIND QUARTERLY. They have now been revised where necessary and brought together in this book which does not set out to deal in detail with every aspect of this vast subject but attempts to synthesise the major racial elements of Africa, to indicate their relationships and differences, and to formulate a theory of the racial origins of the African populations of our times.

170 pages *15 plates*

£1.40 $5.50

THE MANKIND QUARTERLY

1 DARNAWAY STREET, EDINBURGH. EH3 6DW
SCOTLAND

Population Review

A JOURNAL OF ASIAN DEMOGRAPHY

Editor: S. CHANDRASEKHAR

The contents of the TWELFTH ANNIVERSARY ISSUE *include:*

The Crowded World by Sir Julian Huxley; Population Growth in the United States by Professor Philip M. Hauser; The Causes of Poverty: a Clinical View by Dr John Kenneth Galbraith; Population and Freedom by Professor Joseph J. Spengler; The Indians of British Guiana by Dr G. C. L. Bertram; Population Problems in a Developing Economy by Professor S. Chandrasekhar; The Ethnic Groups of Malaya: a Population Study by Dr Mukul K. Dey.

Published by

INDIAN INSTITUTE FOR POPULATION STUDIES
GANDHINAGAR, MADRAS-20, INDIA

Price Rs 5. *Annual Subscription* Rs 10 . £1 . $4.00

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

VERITAS BOOKSHOP

for conservative books on

RACE DIFFERENCES

SEPARATE DEVELOPMENT

SOUTH AFRICA and AFRICA

Write for book lists to

P.O. Box 2052, Pretoria, South Africa

The Rhodesian crisis is YOUR crisis!

Lenin said: "First we will take eastern Europe. Next the masses of Asia. Then we shall encircle that last bastion of capitalism, the United States. We shall not have to attack. It will fall into our hands like an overripe fruit."

Rhodesia is fighting YOUR battle NOW!

If she goes under YOU ARE NEXT!

Read RHODESIA AND WORLD REPORT

Published monthly. Annual subscription: surface mail Rh$2.90; air mail Rh$4.35.

P.O. Box 1871, Salisbury, Rhodesia.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

GENUS

The official publication of the

ITALIAN COMMITTEE FOR THE STUDY OF POPULATION PROBLEMS

Published under the auspices of the National Research Council

Editor: NORA FEDERICI

The Scientific Committee of *Genus* is composed of the members of the Technical Committee of the Italian Committee for the Study of Population Problems: V. Castellano, University of Rome; P. Fortunati, University of Bologna; G. Genna, University of Rome; G. L'Eltore, University of Rome; G. A. Maccacaro, University of Milan; I. Scardovi, University of Bologna; and Nora Federici (President).

Volume XXVI, 1970, includes: La supermortalità nelle regioni italiane, by M. Natale, A. Menotti, P. Pasquali; The Effects of Programs of Birth Control Education on the Practice of Induced Abortion in Japan, by I. Figa'-Talamanca; Le statistiche relative alla criminalità tra i lavoratori migrati: una proposta di armonizzazione, by G. Marbach; Gli orientamenti di ricerca nelle scienza umane e qualche riflessione sul possibile futuro della demografia, by N. Frederici; Vu d'ensemble sur la situation demographique de l'Iran, by M. Amani.

The annual subscription to *Genus* is $10.00 (or equivalent), and subscriptions should be sent to: Segreteria del Comitato Italiano per lo Studio dei Preblemi della Popolazione, Via Nomentana, 41-00161 Rome, Italy.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

THE MANKIND QUARTERLY

SUBSCRIPTION RATES

Single issue — 40p ($1.65); annual subscription (4 issues) — £1.50 ($5.50); three year subscription (12 issues) — £4 ($15.40). Post free by surface mail. Copies will be sent by air mail on payment of an extra £1.50 ($5.50) per year or 40p ($1.45) per copy. Back numbers are supplied while available at 50p ($1.85) each. No responsibility can be accepted for copies lost in the post after dispatch.

CONTRIBUTIONS

All material submitted for publication in THE MANKIND QUARTERLY must be fully and finally corrected, and must be in clear, double-spaced typing, preferably in triplicate. A short biographical note and a suitable photograph of the author may be sent with the article for inclusion if space permits.

The Editors do not accept responsibility for the views expressed by individual contributors.

PAYMENT TO AUTHORS

Authors of articles published in THE MANKIND QUARTERLY are now paid at the rate of one guinea or $2.50 per printed page, and they also receive twelve free copies of the issue concerned.

1 DARNAWAY STREET, EDINBURGH. EH3 6DW
SCOTLAND

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED